RESOLUTION NO. 2015-041

A RESOLUTION AMENDING AND ADOPTING THE

2014 RIO ARRIBA COUNTY COMPREHENSIVE PLAN

WHEREAS, the Comprehensive Plan is a goal-oriented living document designed to guide the County over the next five years; and,

WHEREAS, an approved Comprehensive Plan is an advisory document of the County that establishes a basis for the regulations and programs necessary to manage current and future development within the County; and,

WHEREAS, the current Comprehensive Plan serves as a catalyst for future funding of County projects at the State and Federal level; and,

WHEREAS, the Comprehensive Plan does not change any existing, nor create any new laws, regulations, or requirements; and,

WHEREAS, the County acknowledges the value of comprehensive guidelines covering a range of elements including land and water, natural resources, transportation, housing, health, economic development, community facilities and infrastructure, and hazard mitigation; and,

WHEREAS, Planning and Zoning staff have engaged with community members since September 2014 to identify issues, establish goals, and recommend specific implementation strategies; and,

WHEREAS, local radio, the county website and informational flyers were used to solicit input and community participation; and,

WHEREAS, County residents provided valuable input constituting the bulk of the proposed amendment recommendations through a series of town halls; and,

WHEREAS, the Planning and Zoning Committee and the Board of County Commissioners conducted public hearings to solicit input and to review the Plan; and,
WHEREAS, the Planning and Zoning Committee on December 12, 2014 has recommended the 2014 Rio Arriba County Comprehensive Plan be adopted and used as the planning document for the Rio Arriba County Board of Commissioners.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNTY OF RIO ARRIBA THAT:

1. The County of Rio Arriba does hereby amend and adopt the “2014 Rio Arriba County Comprehensive Plan” on December 23, 2014, as a guideline for the future development of the County; and,
2. The Plan is a fluid working document, subject to annual review and five year updates to ensure it reflects the evolving vision of the County.

SIGNED, ADOPTED AND APPROVED THIS 23rd DAY OF DECEMBER 2014.

COMMISSIONERS

BOARD OF COUNTY

RIO ARRIBA COUNTY, NEW MEXICO

______________________________
Danny J. Garcia, Chairman
Commissioner, District III

______________________________
Barney Trujillo
Commissioner, District I

______________________________
Alfredo L. Montoya
Commissioner, District

ATTEST: _______________________________________
Moises A. Morales, Jr. Rio Arriba County Clerk
ACKNOWLEDGEMENTS

RIO ARRIBA BOARD OF COUNTY COMMISSIONERS
Barney Trujillo, District I
Alfredo L. Montoya, District II
Danny J. Garcia, District III, Chairman

COUNTY MANAGER
Tomas Campos, III

ASSISTANT COUNTY MANAGER
David F. Trujillo

PLANNING AND ZONING DEPARTMENT
Lucia F. Sanchez, Director
Phil Kilgour, Assistant Planner
Andrew Martinez, Assistant Planner
Michael Garcia, Assistant Planner

PLANNING AND ZONING COMMITTEE MEMBERS
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Pablo Manzanares, Secretary
Raymond Ortiz, Member
JR Trujillo, Member
Lorenzo Valdez, Member
Manuel Trujillo, Member
Miguel A. Trujillo, Member
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INTRODUCTION

The Comprehensive Plan is a public document adopted by the County of Rio Arriba to provide guidance in decision-making regarding the health, safety, quality of life and infrastructure development of its residents. The Comprehensive Plan, uses words and graphics to illustrate 5-20 year community planning strategies, bridging the gap between where Rio Arriba is today and its projected future. Community needs have been determined through input provided by residents, business owners, property owners and other stakeholders at public meetings. The plan identifies the major goals and strategies to be used in future planning.

The Comprehensive Plan identifies a County-wide community mission and vision incorporated into seven planning elements. Elements of the Plan include Natural Resources, Land Use, Economic Development, Housing, Community Facilities & Infrastructure, Transportation, and Hazard Mitigation. Each element consists of a set of goals and implementation strategies.

The Plan is a “living” document that is intended to be updated every five (5) years and amended every two (2) years as programs and regulations are implemented and conditions within the County change and evolve.

The 2008 Rio Arriba County Comprehensive Plan was funded through a planning grant provided by the Local Government Division of the New Mexico Department of Finance and Administration.

The Rio Arriba County Comprehensive Plan was amended and adopted in July of 2010 and is now being amended and adopted in 2015. This revision will keep the planning document for the county on track for any potential funding opportunities at the State and Federal level.
MISSION

"PROTECTING WHAT'S YOURS"

Rio Arriba County will use its constitutional powers to provide for the safety, preserve the health, promote the prosperity and improve the morals, order, comfort and convenience of the inhabitants of Rio Arriba County.

VISION

Rio Arriba County is a unique rural area where generations of families have chosen to live and new neighbors arrive every day. By encouraging quality education and diverse economic opportunities, Rio Arriba County will enhance and strengthen our traditional land-based communities, customs and cultures to improve our quality of life and facilitate an efficient and effective development process that supports economic development. We will develop housing, education and business-friendly environments that create prosperity and a bright future for our youth. Irrigated agriculture will protect our precious water and natural resources by recharging critical ground water supplies, fostering lush riparian areas and providing life to the people, crops and fiber of the county. We will move toward a future where we, our children and our grandchildren can find their own path, perhaps along an acequia, and feel the sense of place we have today.
COMMUNITY PROFILE

In prehistoric times, Rio Arriba County was home to people who relied on the natural game, fish and the rivers of the region. Some prehistoric settlement sites are associated with mining Cerro Pedernal for chert which was used to make arrow points and other tools. These settlements, believed to be Paleo-Indian, are 10,000 to 11,000 years old. The Anasazi people of New Mexico cultivated corn as early as 3000 BC, and squash, beans and melons by 1000 BC. By 1200 AD, the Anasazi were developing settlements of cliff dwellings and Great Houses on the mesas and cliffs of the Pajarito Plateau. Around 1500 AD, drought and other factors caused them to move permanently into the river valleys, where they irrigated their crops with surface water. There, village life began to flourish in communities known today as Pueblos. The Pueblo communities of Santa Clara and Ohkay Owingeh (formerly San Juan Pueblo) are located within Rio Arriba County’s boundaries today.

The 1500s marked great change for the Pueblo Indians. Jicarilla Apache bands who had settled in the Platte and Arkansas River Valleys of Colorado in the 1200s or 1300s moved south into the mountainous areas of northern New Mexico, while the first Spanish explorers and colonists occupied the region.

In 1598, Don Juan de Oñate established the territory’s first capitol at the village of Yunque Yunque, located at the confluence of the Rio Chama and Rio Grande near present-day Ohkay Owingeh, and renamed it San Gabriel. From there, he and his men launched numerous expeditions in the area. In these early, and later years, the Spanish captured nomadic Plains Indians, Navajos, Apaches, Utes, and later, Comanches, to create peripheral settlements that buffered the Spanish from attack by nomadic tribes. Known as genizaros, these detribalized Indians became permanently integrated into northern New Mexico’s communities and cultures over time. The communities of Abiquiu and Ojo Caliente where thus established in the mid-1700’s. The Pueblo Indians experienced the negative effects of colonization on their culture during the first near century of Spanish rule. In 1680, Popay, a medicine man from Ohkay Owingeh, organized the Pueblo Revolt, uniting all the Pueblos in the territory to drive the Spanish from New Mexico.

Within this legacy of conquest, the Spanish participated in cultural exchange with the Pueblos, introducing new crop varieties, the adobe brick, and technologies that included surface irrigation systems or acequias. However, it was not until la reconquista or the reconquest of 1692 and the Spanish implementation of the more progressive neuvias leyes de las indias, that a more equitable and synergistic relationship emerged. After 1692, Mexican families, rather than Spanish conquistadores, were recruited to settle in the territory in exchange for mercedes or land grants provided by the government. Dictated by town design in the Laws of the Indies, the physical layout of land grants was ingenious for its arrangement of land uses. A central plaza served as the center of commerce and economic activity, and was surrounded by adjoining homes, which doubled as defensive walls. The plaza’s only openings were solid wooden gates that could be closed and fortified in case of raids by nomadic Indian tribes. Outside of the
plaza, land was divided into or narrow strips of common land, which began at the river and stretched into the mountains. The intent was to provide families with all of the necessities for survival—irrigated land for crops; dry land for homes; grasslands for grazing; and mountainous areas for hunting, gathering and timber. It was from this integrated system of land use that northern New Mexico’s pastoral traditions, including grazing and timber harvesting, flourished.

The settlers’ success at survival was aided by the social and political structures underpinning their communities. The settlers formalized irrigation systems into political organizations known as **acequia** commissions. **Acequias** were viewed as community-owned infrastructure, and were managed by the commissioners. The ditches themselves were maintained by a **mayordomo** (ditch boss) and the **parciantes** (irrigators). As a result of this history, **acequia** commissions are recognized as political subdivisions of the State of New Mexico to this day. Within the context of the **acequias** and land grants, many of Rio Arriba County’s communities were founded in the 1700s, including Chimayo, Truchas, Canjilon, Vallecitos and Cañon Plaza.

In 1776, Francisco Antanasio Dominguez passed from Santa Fe through Rio Arriba County with Francisco Garcés and Silvestre Velez de Escalante to establish a route between the older settlements of New Mexico and the new ones on the west coast. They traveled north from Santa Fe, through what would become southwest Colorado and from there they went west toward Monterey. They didn’t make it to the west coast and returned back to Santa Fe. So while no direct link was established, the West had at last been explored and chronicled. The Dominguez-Escalante expedition would become invaluable to those who would follow, opening what would be called the Old Spanish Trail 40 years later, between Santa Fe and California.

The 1800s witnessed an explosion of new communities in Rio Arriba County, some due to construction of the railroad, which began in the 1860s. Gallina and La Madera were settled in the early 1800s, Tierra Amarilla and Española were established in the middle of the century, and Brazos, Chama, Dulce, Velarde, El Rito, Cebolla, Lumberton and the coal-mining town of Monero followed from 1860 through 1890. Political turmoil also characterized this period. In 1821, Mexico won its independence from Spain following the eleven-year Mexican War of Independence. New Mexico came under the rule of the Mexican government, although few changes were made to the status or government of the territory.

In 1846, the U.S. declared war on Mexico after Mexico attempted to defend the territory of Texas, which the U.S. annexed in 1845. The U.S. won the war in 1848, and Mexico’s sparsely-populated northern territories, including New Mexico, fell to the U.S. The Treaty of Guadalupe Hidalgo, which established the terms for ending the war, allowed those living in the territories to become U.S. citizens, but did not commit to recognizing Spanish and Mexican land grants. As a result, it is estimated that only 13% of New Mexico’s land grants were validated by the U.S. Court of Private Land Claims. The Pueblos of New Mexico, including those in Rio Arriba County, had their land grants recognized by the US government, although many grants were considerably reduced in
size. The Jicarilla Apache Tribe negotiated with the U.S. for its own reservation, which was established by Executive Order in 1887. Today, these reservation lands represent 20.88% of Rio Arriba County and are held in trust for the Pueblos and Tribes.

The Homestead Act of 1862 led to the development of a different settlement pattern in the western half of the County. The Act provided incentives as a method to spread population westward by granting land for farming to anyone who would improve, or cultivate the land and build a permanent shelter. The western part of Rio Arriba County witnessed a population increase in the middle 1870’s as settlers from several eastern states came to New Mexico. The Western part of the County, a portion of the San Juan Basin, arid and known for its rugged topography, became home to several farmers and ranchers. Settlers found the land fertile, but with no surface water available and difficult access to groundwater, crop success was contingent on weather. The settlers of the San Juan Basin developed cultivation techniques that accommodated their environment and were able to survive independently. As oil and gas reserves were discovered in the area, presenting new economic opportunities, crop cultivation began to be practiced less, however, limited ranching and grazing activities have continued to this day along with oil and gas development.

Under U.S. law, most of the land designated as “commons” under the land grants were set aside as forest reserves and national forests. This included most grazing and forest land. In Rio Arriba County, today’s Santa Fe and Carson National Forests were established as forest reserves in 1892 and 1906, respectively. To the land grant heirs of Rio Arriba County, the federalization of former land grants remains a difficult and controversial issue that is being addressed through the judicial and legislative systems. It is hoped that traditional livelihoods on communal grazing and timber lands can be restored to bring a higher level of social and economic stability to the area.

Rio Arriba County experienced several economic shifts after 1850. The timber and mining industries prospered in the late 1800s and the early 1900s, due to the arrival of the Denver and Rio Grande Western Railroad (D&RGW) to the area. Chama became home to the timber industry in the 1920s, and by the 1930s, two coal mines operated in Monero. The economy of the western half of the County, which encompasses a portion of the San Juan Basin, was also dependent upon the production of raw materials; in this case, oil and gas. Early oil and gas exploration dates back to 1906 in the San Juan Basin, a geologic basin with oil and gas reserves of national significance, but it wasn’t until 1921 that oil and gas production started to dominate the economy of this region. Large mineral reserves and continually improving drilling technology have allowed the basin to sustain a prosperous oil and gas industry for over 50 years. The commercial center of the oil and gas industry in the San Juan Basin is the City of Farmington in San Juan County, but many small communities in Rio Arriba, such as Lindrith, which were originally homesteading communities, have sustained themselves with a mix of ranching and oil and gas development for over 50 years. Today there are over 11,000 oil and gas wells in the western part of the County which contribute to the economic sustainability of these communities as well as the County and the State.
By the 1960s, mining and timber-harvesting declined as resources became depleted. In 1909, the Spanish American Normal School was founded in El Rito and eventually became a community college. A fiber arts program was established there in the 1930s, and the strong sheep-ranching traditions of the area have sustained fiber arts as a major local industry, concentrated today in Tierra Amarilla, Española and Chimayo. The El Rito fiber arts program was initiated at the Northern New Mexico Community College, which established a branch campus in El Rito in the 1990s. Northern New Mexico Community College opened the doors of its main branch in Española in 1970, and today has evolved into an accredited four-year college.

Over time, the residents of Rio Arriba County have become increasingly dependent on wage labor, secured through work in state and federal government agencies, as well as in the local school district and institutions of higher education. Established during World War II to produce nuclear technology for the war, Los Alamos National Laboratories (presently Los Alamos National Security) is one of the largest employers in northern New Mexico. Despite these radical changes to the economy, Rio Arriba County retains strong ties to its agricultural roots. Tens of thousands of acres remain under agricultural production, and agriculture and livestock remain important components of the local economy. As an encouraging testament to the strength of Rio Arriba’s traditions, culture and history, the protection of irrigated farm and grazing land continues to be a top priority for residents of the County.
COMMUNITY PROFILE

Rio Arriba County is a rural county. According to the US Census, it does not have a dominant economic sector as defined by the Census, such as farming, recreation or manufacturing, which may be found in the neighboring counties of Santa Fe and Los Alamos. Throughout the nation, rural counties lacking a strong economic base tend to lose population when economic conditions become depressed. The 2009 US Census does identify Health and Social Services as the largest, and fastest growing sector of the economy, accounting for 23.6% of wages. Because of the excellent reputation of the hospital and rural clinics, along with educational opportunities associated with Northern New Mexico College, health care presents opportunities to keep population and young people in Rio Arriba, and should be targeted as a sector prioritized for infrastructure and programmatic expansion.

As mentioned earlier, the effects of recession for many rural communities throughout the U.S can have a drastic impact on an already impoverished community. As a result of the 2007 - 2009 Great Recession, the 2010 Census reports our county population of 40,246 people, which is down from 41,190 in the 2000 US Census. Census estimates show the population further declining to 40,072 in 2013. The 2010 US Census data shows this population loss can be found in the younger segment of the population. The number of children and people aged 18 to 64 has decreased whereas the number of people age 65 and older has increased. Median household wealth fell 35% in the US, from $106,591 to $68,839 between 2005 and 2011.
According to the Census, NM is going from 39th to 4th in the nation by 2030 for percentage of persons 65 and older in the adult population compared to the population of the US as a whole. Rio Arriba’s percentage of adults age 65 and older was 15.8% in 2010 compared to a state rate of 14.7%, while Rio Arriba’s population of adults 60 and older was 26.4%. This dramatic shift indicates a transformation in demand for county resources, as well as an economic trend towards dramatic growth in the health and human service industries through 2030.

In comparison, other counties adjacent to Rio Arriba County lost population also; San Juan -2.7%, Los Alamos -0.8%, Mora -3.6% and Colfax -0.03%. Two adjacent counties increased population, they are: Santa Fe 2.3% and Taos 0.3%. Bureau of Business and Economic Research (BBER) projects a declining rate of growth for Rio Arriba County from 2010 through 2040. Growth in the County is hampered by several issues, such as the diminishing availability of land and water, and the relative lack of employment.

<table>
<thead>
<tr>
<th>Rio Arriba County 2013 Census Demographics (Estimates) Compared to the State of New Mexico</th>
<th>Rio Arriba</th>
<th>New Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population 2013 estimate July 1</td>
<td>40,072</td>
<td>2,085,287</td>
</tr>
<tr>
<td>Population 2010 estimate April 1</td>
<td>40,247</td>
<td>2,059,183</td>
</tr>
<tr>
<td>Percent change</td>
<td>-0.4%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Persons under 5 years 2013</td>
<td>6.8%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Persons under 18 years 2013</td>
<td>24.3%</td>
<td>24.3%</td>
</tr>
<tr>
<td>Persons 65 years and older 2013</td>
<td>15.8%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Persons per household 2008-2010</td>
<td>2.65</td>
<td>2.63</td>
</tr>
<tr>
<td>Per capita income (2012)</td>
<td>$20,253</td>
<td>$23,749</td>
</tr>
<tr>
<td>Median household income (2012)</td>
<td>$40,791</td>
<td>$44,886</td>
</tr>
<tr>
<td>Persons below poverty level (2012)</td>
<td>19.3%</td>
<td>19.5%</td>
</tr>
<tr>
<td>High school graduates</td>
<td>78.3%</td>
<td>83.4%</td>
</tr>
<tr>
<td>Bachelor’s degree or higher</td>
<td>15.9%</td>
<td>25.6%</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>71.4%</td>
<td>47.3%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>18.0%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Foreign born</td>
<td>6.3%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Live in same house 1 year or more</td>
<td>91.2%</td>
<td>84.8%</td>
</tr>
<tr>
<td>Mean travel time to work</td>
<td>26.9 minutes</td>
<td>21.7 minutes</td>
</tr>
</tbody>
</table>

*Source: U.S. Census*
The population of Rio Arriba County is slightly younger than the population of New Mexico. There are more people, per capita, over age sixty-five in the County than in New Mexico as a whole. Rio Arriba County’s per capita and median household incomes are, respectively, $4,000 and $3,500 less than the rest of the state. Yet the percent of people living in poverty is the virtually the same at 19.3% and 19.5%. Rio Arriba County graduates 5.1% fewer students from high school than the rest of New Mexico, and 9.7% fewer people have bachelors or other postsecondary degrees.

Rio Arriba County is unique for its high percentage of Hispanic residents and Spanish-speakers. More than 71.4% of County residents identify themselves as Hispanic or Latino. In New Mexico as a whole, 47.3% residents identify themselves as Hispanic or Latino. It is important to note that Hispanics and Spanish-speakers in Rio Arriba County are not associated with a large immigrant population. In fact, Rio Arriba has a much lower percentage of foreign-born residents than New Mexico. Instead, the County’s Hispanic population has its origins in Spanish and Mexican settlers who came to New Mexico in the 1500s through the mid-1800s. Rio Arriba County also has a larger Native American population than New Mexico, at 18.0% of all residents.

Refer to the associated tract numbers (0-8) within the map for the following bar graphs.
COMMUNITY PROFILE

Rio Arriba County encompasses approximately 5,895 square miles or 3.772 million acres of land, and eighty (80) rural unincorporated communities. It ranges in elevation from 5,000 feet south of the village of La Mesilla, at the southern end of the County, to 13,064 feet of the Truchas Peak in the Sangre de Cristo Mountains and Pecos Wilderness. There are two incorporated municipalities within the County: the City of Española (pop. 10,240 in 2010), and the Village of Chama (pop. 1,042 in 2010). Española and the adjacent unincorporated communities of Alcalde, Chimayo and Hernández make up the most populated part of the County.

Only about 22.3% of land in Rio Arriba County is privately owned. That means about 844,350 acres is available for ranching, farming, residences, business and local government uses. The remaining 77.6% of land in the county is mostly regulated by federal, state and tribal entities such as the U.S Forest Service, Bureau of Land Management, New Mexico State Land Office, and reservations belonging to Ohkay Owingeh, Santa Clara, the Jicarilla Apaches, or the Navajo. This disproportionate amount of federal and tribal land ownership places pressure on private lands to provide and accommodate much needed growth for manufacturing and small scale industries.

Furthermore, since federal lands are tax-exempt, counties such as ours that are encompassed with federal public lands rely heavily on “Payments in Lieu of Taxes” (PILT) to help offset losses in property taxes used to carry out such vital services as firefighting and police protection, construction of public schools and roads, and search-and-rescue operations. At present, funding for the Payments in Lieu of Taxes (PILT) program has not been reauthorized for Federal Fiscal Year 2015 (October 1, 2014 to September 30, 2015). As a result, the Department of the Interior's standard request for acreage and prior-year payment data to calculate payments for 2015 that occurs each October will be delayed until funding for the program is provided.

Additionally, through Title I & II funds of the Secure Rural School Act within the U.S. Department of Agriculture provides and ensures that counties across the country can continue to count on stable payments that provide funding for schools and roads, make additional investments in projects that enhance forest ecosystems, and improve cooperative relationships.
RIO ARRIBA COUNTY LANDBASE
5,895 Square Miles

Private Lands: 22.38%
Irrigated Ag. Lands: 4.17%
Forest Service Lands: 37.40%
Bureau of Land Mgmt: 15%
Native Reservations: 20.88%
State Land Board: 3.71%
Water: 0.47%

RIO ARRIBA COUNTY - PILT HISTORY 2000 - 2014

$889,964 $2,612,346 $2,195,446
COMMUNITY PROFILE  

ECOREGION

The northern New Mexico bioregion (sub-ecoregion) of the Nearctic ecozone is characterized with mild-cold winters and sudden elevational grades between flatlands and mountains. Its high elevation and arid to semi-arid climate make up two dominant ecoregions within northern New Mexico and Rio Arriba County. Mean annual temperatures range from 64°F in the extreme southeast to 40°F or lower in high mountains and valleys of the north; Minimum temperatures below freezing are common in all sections of the State during the winter, but subzero temperatures are rare except in the mountains.

The first eco-region is the *Temperate Coniferous Forests* of the Colorado Rockies. This eco-region is distinctive as it extends from the Laramie mountain ranges in Casper, Wyoming to the Sangre de Cristo mountain ranges in Santa Fe, New Mexico. Altitude, latitude, temperature and other biotic factors categorize this biome as a zone of abundant and diverse vegetation and fauna. Its dominant vegetation type is coniferous forest made up of Bristlecone Pine (*Pinus aristata*) and Ponderosa pine (*Pinus ponderosa*) with extensive stands of aspen (*Populus tremuloides*), prominent in the Colorado Rockies where they out-compete lodgepole pine as a major post-fire serial species (Peet 1988). Rocky Mountain Douglas-fir (*Pseudotsuga menziesii* subsp. *Glaucá*) and Engelmann spruce (*Picea engelmannii*) can also be found in high mountain elevations typically above 8,000ft. These tree species are more popular for their value in fuel wood, timber, furniture, and the traditional Christmas tree because of its shape and color. Throughout this high elevation eco-region, all life zone ranges contain several other vegetation communities’ equivalent to mountain meadows, foothill grasslands, riparian woodlands, and upper alpine tundra communities.
Large mammals inhabit the eco-region including elk (Cervus Canadensis), mule deer (Odocoileus hemionus), black bear (Ursus americanus), wolverine (Gulo gulo), cougar (Puma concolor), lynx (Lynx Canadensis), and American marten (Martes americana). Southwest Colorado and northwest New Mexico may still have some remnants of Grizzly bears (Ursus arctos) but there has not been a confirmed sighting of a grizzly in Colorado since 1979 and the last grizzly bear killed in New Mexico was around 1920 in the Pecos Wilderness. The Rockies may in fact have nearly all the species that were present prior to European settlement. As such, the eco-region may hold long-term evolutionary potential for these species.

While this eco-region is listed as “relatively stable/intact”, threats and degradation to habitat within this eco-region originates primarily from drought and catastrophic fire. Activities such as logging, mining, oil and gas development, and recreational-residential construction are also major threats to the eco-region, whereas domestic livestock grazing, over populated herds of elk, and introduction of exotic species have altered plant species compositions by not allowing ample time to renew themselves. Vegetative species are disappearing from ranges and being replaced by thorny and unproductive woodlands as well as by exotic, non-native species. - "Colorado Rockies Forests." Wikipedia. Ed. University of California Press., World Wildlife Fund., and Vanderbilt University. Wikimedia Foundation, n.d. Web. 19 Dec. 2014.

The second eco-region is the Desert and Xeric Shrublands of the Colorado Plateau. This shrubland and forest eco-region is primarily known for its open spaces, diverse topography, and sparse human population. Its high elevation, arid climate, and soil type make for high erosive activity with swift flowing rivers that have down-cut and incised

Truchas Peaks, NM
the plateau exposing sandstone. There are conspicuous vegetation zones where the woodland area is most extensive, dominated by Pinyon pine (Pinus edulis) and several species of juniper (Juniperus spp). Sagebrush (Artemisia spp.), Alder-leaf cercocarpus (Cercocarpus montanus), mountain shrub communities, grasses and herbs, cacti and yucca sparsely cover the ground between the trees. The area is made up of high mountains, mesas, deep valleys and canyons, and shrublands. Elevations most typically exceed 5,000ft and receive over 40 inches of annual precipitation in the higher ranges. Winter snow and summer monsoon rains provide this region with considerable moisture that rejuvenates the vegetation of the landscape each season.

Historically, the most extensive land use in the Colorado Plateau has been livestock grazing, and for the most part, still is. It’s known for its productive habitat that supports many large populations of elk and deer including black bear and mountain lions. Bird diversity is typically low in shrubland because of its simple floristic structure except where drainages and washes occur. There, the density and diversity of avian species match that of the mountainous shrub to include larks, doves, mockingbirds, shrikes, and sparrows especially where large sagebrush exist. Where there is reduced shrub and deeper soils, colonies of prairie dogs are typical inhabitants that attract eagles, hawks, and falcons. Although wetlands are scarce and scattered throughout, many are identified as the largest and richest ponds, lakes, and marshes within the San Luis Valley overlapping parts of Rio Arriba County. In the lowland riparian and on the shores and banks of the lowland streams and rivers, several exotic plants like Salt Cedar, Russian-Olive and Russian Knapweed have extensively invaded lowland riparian areas degrading traditional native areas.

The Colorado Plateau is rich in fossil fuel minerals which are a major source of energy with extensive oil, and gas development and mining of coal and uranium. Timber and logging operations have occurred at the higher elevations where aspen, pine and fir are found. - Hogan, C., & Fund, W. (2014). Colorado Plateau shrublands. Retrieved from Http://www.eoearth.org/view/article/151311.
The hydrologic connectivity between the uplands, the irrigated agricultural lands, and the groundwater in this arid to semi-arid region are critical elements in considering management decisions for water sustainability. Watersheds collect water from rainfall, snowmelt, and serve as storage for spring and summer runoff in various amounts and durations. Watershed recharge and flows are essential functions that support the terrestrial and aquatic habitat that make a watershed healthy.

Five watershed sub-basins encompass and intersect with Rio Arriba’s jurisdictional boundaries. The Upper San Juan is the largest at 3,431 square miles; the Upper Rio Grande sub-basin, running beside the Sangre de Cristo Mountain chain, is 3,254 square miles; the Rio Chama is located in central county, encompassing most of the Frontier Overlay Zone District; the Blanco Canyon sub-basin along the southwest covers 1,714 square miles; Conejos, the smallest at 766 square miles is intersected by the Colorado and New Mexico state lines.
A watershed is synonymous with a catchment or a drainage basin; all precipitation, streams and surface water collect and drain from a watershed.\textsuperscript{1} Watersheds come in all shapes and sizes. They cross county, state, and national boundaries. Better described by scientist geographer John Wesley Powell as "that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community." Intersecting Rio Arriba County are a total of 194 hydrologic units at the watershed level, where regions, sub-regions, basins, and sub-basins are classified initially at a smaller scale (further). Lastly, in a larger scale (nearer), watersheds and sub-watersheds follow and are used as boundaries for conservation efforts between 10,000 and 40,000 acres in size. In general, each HU is delineated so that all surface water drainage converges at a single outlet point.

Land and water are ecologically linked in a natural system called a catchment, drainage basin, or watershed. It is a product of the land it inhabits – the type of rock and soil (both surface and subsurface), the shape of the land, the amount of rainfall and type of vegetation are some of the factors that determine the shape, size and flows of watershed streams and rivers and lakes. A watershed also includes all the humans, plants and animals that live in it, and is impacted by all the things we have added to it such as buildings and roads.

Everything we do affects our watershed – from washing clothes and growing food to mining, commercial farming, and building roads or dams. The reverse is also true: our watershed affects everything we do, by determining what kinds of plants we can grow, the number and kinds of animals that live there, and how many people and livestock can be sustainably supported by the land.

We are all connected through watersheds. Watersheds do not respect political boundaries, and in fact can encompass several cultural, national, international and economic boundaries. What happens in one country’s part of the watershed will impact water quality, quantity, or people who depend on it in the countries downstream. Because water runs downhill, a watershed usually starts at the top of a hill, mountain or ridge.
Most of a watershed consists of slopes and the river valley. Water eventually makes its way to a major stream or river through tributaries, and eventually joins that of other watersheds and makes its way to seas and oceans. It may also spend some time underground along the way.

Slopes influence a watershed’s drainage pattern. Very steep slopes make it difficult for rainwater to seep into the ground. This causes water to run off rapidly and increases erosion. Plant cover is more difficult to establish and infiltration of surface water is reduced on steep slopes.

A watershed's floodplain is the flat area that starts at river's edge and continues to the beginning of surrounding highlands. Floodplains are a particularly rich zone for biodiversity and agricultural soils. In many parts of the world, annual flooding of the floodplain is welcomed, as it renews the soil's fertility for farming. Damming has been especially harmful to floodplains.

The watershed’s exposure to the sun affects temperature, evaporation, and transpiration (water used by plants) – which in turn affect how we use the land and what will grow there. Soil moisture is more rapidly lost by evaporation and transpiration on steep slopes facing the sun. Slopes exposed to the sun usually support different plants than those facing away from the sun. Orientation with regard to the prevailing winds has similar effects.

Streams can be one of three types, depending on how often they carry water:

- **Ephemeral streams** are small, temporary paths, which occur only during a rainstorm or after a flood. The channels are not defined and vary from storm to storm.
- **Intermittent streams** generally flow only during the wet season.
- **Perennial streams** flow year-round; their channel is usually well-defined and they may have several smaller tributaries which join them.

A watershed’s health and make-up is determined by natural and human factors such as its climate, soils and geology, vegetative cover, and human impacts. Land and water are closely linked through the water cycle.

Climate – the type of weather a region has over a long period of time – determines how much water comes to the watershed through seasonal cycles. The seasonal pattern of precipitation and temperature variation control stream flow and water production. Rising temperatures and extreme weather have a great impact on when, and how much water fills America’s rivers, lakes, and reservoirs, and how water is absorbed to replenish groundwater reserves. Water shortages put tremendous pressure on communities and businesses competing for scarce water resources. Declining underground water levels can drastically limit water supplies to cities and farms.
Soil is a basic watershed resource that, except over a long period of time, is non-renewable. It may take more than a century to produce a single centimeter of fertile soil and thousands of years to produce enough soil to support a high-yield, high-quality forest, grassland or agricultural crop. Careful management and protection of soil is necessary to preserve its function and productivity. Because soil carries plant nutrients and holds water, it is a key element in a watershed’s health.

Plant cover benefits a river basin in a number of ways. The canopy intercepts rain and reduces the force with which it strikes the ground, thereby reducing erosion. The canopy also reduces wind velocity and therefore wind-caused soil loss. Grasses, shrubs and trees make up the major plant cover types in a catchment, and all are important to catchment management. Therefore, removing native trees from catchments can have some of the greatest impacts on its ecological health.

People can have a tremendous impact on the health of a watershed: not only do we use more water than other creatures, but we make major changes to river basins individually and collectively – some of which are beneficial, and some of which can do serious harm. In general, we have modified watersheds so much that many no longer perform many of the useful functions that protect and support our communities. Examples of human caused deprivation are: deforestation, farming and urbanization, permanent structures, paved roads, diminishing open space, and increasing pressure to prevent flooding with dams that no longer serve the community. Believing they will be protected, more and more people move into the most flood-prone lands, increasing, rather than decreasing, local flood hazard. Dams reduce the frequency of flooding, but do not prevent the biggest, most damaging floods from occurring. The result: more expensive damages from floods than ever before.
Currently, there are seven flood control dams that have been built to address flooding issues in various communities along the Rio Grande. Annual flood events during monsoon season impact farmland and local acequias with debris and sedimentation. The Upper Rio Grande Watershed District responsible for these dams facilitate the construction, operation, and maintenance of the dams in coordination with the Bureau of Land Management and other state and federal agencies to develop solutions to help mitigate excessive flooding from the watershed.

According to the National Water Quality Assessment Report 2010 produced by the United States Environmental Protection Agency, Rio Arriba County has 494.62 miles of impaired rivers and streams and 26.5 square miles of impaired freshwater reservoirs that indicate declining conditions for water quality. The "303(d) list" is short for the list of impaired and threatened waters (e.g., stream/river segments, lakes) that have been identified and reported to EPA. The major bodies of water within Rio Arriba are identified in the table below along with their cause of impairment.

Developing and completing Total Maximum Daily Loads (TMDL), or in some cases TMDL alternatives, for the waters identified during the listing stage. A TMDL is essentially a plan, usually based on monitoring information and scientific modeling that describes how pollutant loads coming from various types of sources must be reduced in order to meet Water Quality Standards.
<table>
<thead>
<tr>
<th>Watershed</th>
<th>Water Body</th>
<th>Cause of Impairment</th>
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<tbody>
<tr>
<td>Rio Chama</td>
<td>El Vado Reservoir</td>
<td>Dissolved Oxygen</td>
</tr>
<tr>
<td>Upper San Juan</td>
<td>Navajo Reservoir</td>
<td>Mercury in Fish Tissue</td>
</tr>
<tr>
<td>Rio Chama</td>
<td>Abiquiu Reservoir</td>
<td>Dissolved Oxygen/Mercury/Polychlorinated Biphenyls (PCBs)</td>
</tr>
<tr>
<td>Upper Rio Grande</td>
<td>Rio Grande River</td>
<td>Turbidity, Polychlorinated Biphenyls (PCBs)</td>
</tr>
<tr>
<td>Upper Rio Grande</td>
<td>Santa Cruz River</td>
<td>Sedimentation/Siltation</td>
</tr>
<tr>
<td>Upper Rio Grande</td>
<td>Embudo Creek</td>
<td>Impaired Biota</td>
</tr>
<tr>
<td>Rio Chama</td>
<td>Abiquiu Creek</td>
<td>Dissolved Oxygen</td>
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<tr>
<td>Rio Chama</td>
<td>Polvadera Creek</td>
<td>Sediment/Temperature</td>
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<tr>
<td>Rio Chama</td>
<td>Cañones Creek</td>
<td>Aluminum/Fecal Coliform/Turbidity</td>
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<tr>
<td>Rio Chama</td>
<td>Poleo Creek</td>
<td>Turbidity</td>
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<td>Rio Chama</td>
<td>Rio Puerco De Chama</td>
<td>Aluminum/E. Coli/Nutrients/Temperature</td>
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<td>Rio Chama</td>
<td>Rio Capulin</td>
<td>E. Coli/Pathogens</td>
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<tr>
<td>Rio Chama</td>
<td>Canjilon Creek</td>
<td>Nutrient/Salinity/Temperature/Turbidity</td>
</tr>
<tr>
<td>Rio Chama</td>
<td>Rio Nutrias</td>
<td>Turbidity</td>
</tr>
<tr>
<td>Rio Chama</td>
<td>Rio Chama</td>
<td>Aluminum/E. Coli/Nutrients/Temperature/Turbidity</td>
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<tr>
<td>Rio Chama</td>
<td>Rito De Tierra Amarilla</td>
<td>Sedimentation/Temperature/Turbidity</td>
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<tr>
<td>Rio Chama</td>
<td>Chavez Creek</td>
<td>Temperature</td>
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<tr>
<td>Rio Chama</td>
<td>Rio Chamita</td>
<td>Aluminum/Ammonia/E. Coli/Nutrient/Temperature/Turbidity</td>
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<tr>
<td>Rio Chama</td>
<td>Rio Tusas</td>
<td>Nutrient/Eutophication Biological Indicators</td>
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<tr>
<td>Rio Chama</td>
<td>Rio Vallecitos</td>
<td>Aluminum/Temperature/Turbidity</td>
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Water Resources and Uses

There are two major river systems in Rio Arriba County that have a direct bearing on past and future settlement patterns: the Rio Chama and the Rio Grande. The Rio Chama originates in south-central Colorado, just above the New Mexico border in the San Juan Mountains and the Rio Grande National Forest. It flows by the Village of Chama where it is joined by Willow Creek. It then flows into El Vado Lake and continues flowing south, entering the Chama River Scenic Wilderness. After it is joined by the Rio Cebolla and the Rio Gallina the river enters Abiquiu Lake, the reservoir created by Abiquiu Dam. Below the Abiquiu dam the Rio Chama flows several miles southeast to join the Rio Grande near Ohkay Owingeh, about 5 miles (8.0 km) north of the City of Española.

The Rio Grande is a major river that flows from south central Colorado (Valle San Luis) to the Gulf of Mexico. Depending on how it is measured, the Rio Grande is the fourth or fifth longest river system in North America. It flows from Colorado through Taos County in New Mexico where it enters Rio Arriba County near the community of Rinconada. It provides water for the agricultural communities of Velarde, La Canova, Lyden, Alcalde, and El Guique, Ohkay Owingeh and Santa Clara. It joins the Rio Chama and flows southerly into Santa Fe County. The City of Española developed along the river at the southerly end of Rio Arriba County.

Southern Rio Arriba County lies within the Jemez y Sangre Watershed, which is divided into two sub-basins. The Santa Cruz sub-basin consists of 200 square miles between the Rio Grande River and the Sangre de Cristo Mountains, in and to the east and south of Española. According to the Jemez y Sangre Regional Water Plan (2003), surface water inflow includes 26,280 acre feet per year from mountain front drainage and 10,760 acre feet from irrigation return flow. Annual outflows include 19,700 acre feet for irrigation, 3,680 for evaporation and evapotranspiration, 5,190 in loss to groundwater, and 8,470 in water outflow to the Rio Grande.

The second sub-basin is the Velarde sub-basin which covers an area of 167 square miles and includes the communities of Alcalde, Estaca, Velarde, small portions of Española and the Pueblo of Ohkay Owingeh. Surface water inflow consists of Rio Grande flow at Embudo (816 cubic feet per second), runoff from the Sangre de Cristo Mountains (2,420 acre feet per year), and inflow from groundwater to surface water (5,800 acre feet per year). Outflows include 1,800 acre feet per year in loss to groundwater, 26,400 for irrigation, 667 pumped for municipal and domestic uses, 46 pumped for irrigation, as well as evapotranspiration losses.
The northern portion of Rio Arriba County falls within the Rio Chama watershed, which covers 3,157 square miles. The Rio Chama is part of the Rio Grande Basin and is subject to the laws, compacts and treaties affecting the Rio Grande River. The *Rio Chama Regional Water Plan*, completed in 2005, is the water planning document for this area. According to the Plan, precipitation, the region’s only water supply, produces approximately 418,000 acre feet of water each year in combined stream flow and groundwater recharge in a system where surface and groundwater are closely related. Of this amount, nearly ninety percent (90%) or 375,900 acre feet per year, leaves the region. Approximately 4% or 15,500 acre feet are lost to evaporation and transpiration in reservoirs, natural lakes and the river, or are used by vegetation along the river. Only 6.4% consists of intentional depletions including irrigated agriculture and livestock (6.0% or 25,100 acre feet) and domestic and commercial use (0.38% or 1,600 acre feet). Despite the large amounts of water that leave the region and support populations further south, the Rio Chama watershed chronically experiences shortages of irrigation and domestic water for many reasons, including limited groundwater supply, aging water systems, lack of water storage, and water right issues. The *Rio Chama Regional Water Plan*, as well as this Comprehensive Planning process, found that the priorities for Rio Arriba County residents are to keep water within the region to sustain long-standing agricultural traditions, the *acequia* system, and provide safe and adequate drinking water for this and future generations.

An effort led by the New Mexico State Interstate Stream Commission to update the State’s sixteen (16) Regional Water Plans is currently underway. The Planning and Zoning staff are currently working with local community members to form steering committees in order to update the Jemez y Sangre and Rio Chama Regional Water Plans.

### Surface Water and Agriculture

The early Spanish settlers brought the *acequia* system to the southwest more than 400 hundred years ago to insure sustainability and make the community resilient to water scarcity. *Acequias* were frequently routed through plazas or near homes to provide for domestic uses. They served as a municipal water supply system. The Rincon system provided water to residences near Chimayo homes until the mid-nineties when the water became too contaminated for domestic use. The Board of Rio Arriba County Commissioners intervened to help residents develop the Chimayo Mutual Domestic Water Association system. Many systems continue to provide a primary source of water for farming and ranching ventures in areas once occupied by Spain or Mexico including the region of northern New Mexico and south central Colorado known as the Upper Rio Grande watershed. Within New Mexico the *acequia* system is a political subdivision of State Government; *acequias* are all managed at the local level by the members.

Irrigated agriculture is an important use of surface water in Rio Arriba County for local food and fiber production, riparian habitat and groundwater recharge. In the Santa Cruz sub-basin, about 19,700 acre feet of surface water per year is used for agricultural purposes, irrigating approximately 9,890 acres along the Santa Cruz River and its principal tributaries along the Rio Quemado, Rio Medio and Rio Frijoles. Other drainages
at lower elevations of the Santa Cruz sub-basin only flow after major storm events, including Arroyo Seco, Arroyo Madrid and Arroyo de la Mesilla.

In the Velarde sub-basin, approximately 26,400 acre feet are diverted for irrigation each year along the Rio de Truchas and Cañada de Las Entrañas. Acequias at lower elevations include Arroyo del Pueblo, Arroyo Ocote, Cañada Ancha, Arroyo de Palacio, Arroyo de los Chavez, Arroyo de Ranchitos and Arroyo de los Borregos. An additional 46 acre-feet per year is also pumped from groundwater for irrigation purposes in the Velarde sub-basin.

The Rio Chama acequias use about 24,250 acre-feet per year from surface water. The thirteen (13) tributaries of the Rio Chama support irrigated agriculture. These include Cañones Creek, Polvadera Creek, the Rio Brazos, Rito de Tierra Amarilla, Rio Nutrias, Rio Cebolla, Rio Gallina, Rito de Canjilon, Rio Puerco de Chama, El Rito Colorado, Rio del Oso, Rio Frijoles Abiquiu Creek, and the Rio Ojo Caliente. Irrigated agriculture in the Rio Chama region is facing two major challenges: 1) a lack of water storage capacity for local use, and 2) pressure to convert agricultural water rights to domestic and other uses.

The Rio Embudo, which is a tributary of the Rio Grande in southern Rio Arriba County, serves the villages of Dixon, Cañoncito, Apodaca and Rio Trampas with acequia systems.

The Rio Chama has three surface water reservoirs, all of which benefit downstream users. The most southerly is the Abiquiu Dam and Reservoir, which is operated by the US Army Corps of Engineers. The Middle Rio Grande Conservancy District owns the El Vado Reservoir. Heron Reservoir, the most northerly dam is operated by the U.S. Bureau of Reclamation but it is authorized to store only water imported from the San Juan-Chama Project.

The San Juan-Chama Project was also intended to serve the acequias and rural communities of northern New Mexico. Storage and diversion facilities have not been constructed in the region as originally planned.

**Groundwater and Domestic Water Use**

Currently, most of the southwest, including Rio Arriba County is suffering from drought conditions. Shallow wells have failed. Acequias have limited the amount of water that can be sent to their members. Because reservoirs are at low levels the larger cities like Santa Fe and Albuquerque have put limitations on the use of water.

The Jemez y Sangre Regional Water Plan, prepared by local community stakeholders in conjunction with the Office of the State Engineer (OSE), and adopted by the Interstate Stream Commission, was updated in 2009. This document was prepared to estimate the amount of available surface and ground water that is generated by the Rio Grande and Rio Chama river systems. Water availability has not been re-evaluated for this plan since the initial drought onset. The state water planning effort is an unfunded mandate of the
OSE and the revisions at the local level are currently underway. Steering committees will convene during the winter months of 2014 and the early part of 2015.

The State Water Plan reported that in the Santa Cruz sub-basin, surface and groundwater quantities were estimated to be sufficient through the year 2060. Projections used an estimate that doubles the current population of Española, Santa Cruz, Potero, Cordova, Truchas, La Mesilla and Arroyo Seco, with most growth to occur southeast of Española. Water quality was reported to be generally good in this area, except where septic tanks and leach fields have elevated nitrate levels. The Jemez y Sangre Regional Water Plan estimates inflow to groundwater at 10,650 acre feet per year, including 3,080 from mountain-front recharge, 5,190 from surface water infiltration, 1,760 from adjacent sub-basins, and 620 in irrigation and municipal return flow. Outflow is estimated at 3,000 acre-feet per year for domestic and municipal use, 2,400 for evapotranspiration and 7,130 for sub-basin outflow. Domestic and municipal use is expected to double by 2060, to 6,000 acre-feet per year.

In the year 2006 the State Engineer adopted new domestic well regulations which limited new well permits to 1.0 acre-foot per year, down from the previous 3.0 acre-feet. In 2008 the State Engineer agreed to resume allowing the transfer of the inside portion of domestic wells to the community well of the local mutual domestic water consumers associations. This new regulation will reduce the impact of domestic wells on surface supplies and will provide an additional source of water rights for Mutual Domestic Water Community Associations (MDWCA).

The current residential development trend is a single house served by a single well. Multiple users on a single well, or shared wells, are often physically and financially difficult to achieve because the minimum lot size of 0.75 acres and the topography place homes at too great a distance. The County’s Zoning Ordinance allows for lots as small as 7,500 sq. ft. to be developed with a community water system or a shared well that incorporates some form of advanced wastewater treatment plan. This development style will reduce the number of wells and will promote cleaner wastewater effluent. While very few people have taken advantage of shared wells, Habitat for Humanity, in 2012, began development of an innovative housing project integrating the concept. The project will provide 8 new homes for low-income families.

Water in Rio Arriba County is a critical resource. As population increases, demand for water will also escalate. The County must monitor water quality, availability, and use priorities, and regulate new development to insure a water-footprint that will accommodate future needs.
COMMUNITY PARTICIPATION

Community participation in the creation or revision of a Comprehensive Plan is instrumental to its success, and has been built into the structure of the planning process. The Comprehensive Plan is intended to be the expression of the hopes, desires and concerns of County residents. The History and Community Profiles in this Plan provide context for planning; public input regarding residential or commercial land use, public safety, housing, health, economics or even the quality of internet service are matters that correlate with people’s lives in each of the eighty communities of the County.

The Board of County Commissioners of Rio Arriba County passed a resolution authorizing development of a Comprehensive Plan in November of 2000. In 2000 and 2001, the County established a Comprehensive Planning Task Force to develop a long-term vision to serve as the conceptual basis for the Plan. The Task Force included the Board of County Commissioners, County Management, the Planning and Zoning Committee, and residents of Rio Arriba County representing diverse interests and geographical locations. The Task Force reconsidered existing Rio Arriba County public policies, and led community participation efforts. Nine Community Watershed Planning Districts including Lower Rio Chama, Rio Grande, Santa Cruz, Rio Embudo, El Rito/Ojo Caliente, Upper Rio Chama, Rio Gallina/Rio Puerco, Española and San Juan Basin were identified. A draft Comprehensive Plan was developed but was never presented to the Board of County Commissioners for approval.

The Comprehensive Planning process was revived in 2006 with a planning grant from the NM Local Government Division, which the County used to retain a planning consultant. Because a significant amount of time had elapsed since public input had been gathered, a new community-based planning process was employed to validate and supplement community participation from 2000 and 2001. The process included establishing a Comprehensive Plan Steering Committee to develop a vision and goals statement; workshops for public review Steering Committee work.

While the 2000 process focused on watersheds, the 2006 process aimed to create a Comprehensive Plan for the entire County, with implementation strategies that, in certain cases, pertain to specific communities or areas. The Steering Committee met monthly from September 2006 through October 2007 and drafted a vision statement, and goals for the six plan elements: Land and Water, Economic Development, Housing, Infrastructure, Transportation and Hazard Mitigation. It then reviewed implementation strategies for each of the goals. In July and September 2007, Community Workshops were held in Alcalde, El Rito, Tierra Amarilla and Chimayo to obtain participation from residents in all areas of Rio Arriba County. Input from the Community Workshops was used to develop the final vision statement and plan goals. In November, 2007, over 130 implementation strategies were defined to achieve the goals, and through four community meetings, residents prioritized their top strategies. The results of their prioritization are in Chapter XI Implementation.
Once all of the community feedback and direction was organized and compiled, it was drafted into the Comprehensive Plan and the completed document went before the Board of County Commissioners who approved it via resolution in January of 2008. The Comprehensive Plan Task Force was reconvened to help guide and advise implementation. Several land use issues identified in the initial draft have since been addressed through policy and ordinance establishing standards and regulations for night sky protection and filming within the boundaries of Rio Arriba County.

The current planning process consisted of a series of 8 community meetings. These meetings were noticed and advertised through the County website, email, physical posting of notices in communities, and through radio announcements at KDCE in Espanola and KZRM in Chama. A copy of the two-page announcement is included in the Appendix of this document.

The community meetings were all conducted from 6:00 pm to 8:00 pm as detailed below with the exception of the presentation to the Rio Arriba Community Health Council (RACHC), which took place at the regularly scheduled RACHC meeting. The meetings were conducted using an “open house” format; county planning Staff narrated a graphic presentation on the Comprehensive Plan and then asked for comments from community members in attendance. Large tablets were made available for written input. Categories for comment included Land and Water, Economic Development, Transportation, Hazard Mitigation, Housing and Community Facilities/Infrastructure. While Health Care has been included in past efforts, it was decided that, due to the complexity of the topic, the RACHC Community Health Profile will be presented for Commission approval as a stand-alone plan, and that the two documents will complement one another.

At the meeting the participants were also told that if there was additional interest, they could forward information to the Rio Arriba County website at www.rio-arriba.org to Planning and Zoning page. They were instructed to contact any planner on the Planning
and Zoning contact list, or call the office at 505-753-7774, to discuss your comments by phone. The Draft 2014 Comprehensive Plan was displayed on the County website on November 24, 2014 in preparation for the formal public hearing review and adoption process. The public hearing process allows for public input at hearings. The public hearing schedule was as follows: Planning Committee hearing, December 3, 2014 and December 12, 2014 Board of County Commissioners hearing December 23, 2014.

In the Appendix, titled, Comprehensive Plan Update Community Meetings Goals and Strategy Response can be found the comments from the public at these meetings. The meeting schedule was as follows:

<table>
<thead>
<tr>
<th></th>
<th>Meeting Location</th>
<th>Date</th>
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<tbody>
<tr>
<td>1</td>
<td>Tierra Amarilla, County Complex Building</td>
<td>Thursday, September 4, 2014</td>
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<tr>
<td>2</td>
<td>Abiquiu, Rural Events Center</td>
<td>Tuesday, September 9, 2014</td>
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<tr>
<td>3</td>
<td>Española, County Annex Building</td>
<td>Thursday, September 11, 2014</td>
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<tr>
<td>4</td>
<td>La Arbolera Community Center, Chimayo</td>
<td>Tuesday, September 16, 2014</td>
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<tr>
<td>5</td>
<td>Alcalde, Community Center</td>
<td>Thursday, September 23, 2014</td>
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<tr>
<td>6</td>
<td>Dixon, RAC Community Center</td>
<td>Tuesday, September 25, 2014</td>
</tr>
<tr>
<td>7</td>
<td>Tierra Amarilla, County Complex Building</td>
<td>Tuesday, October 6, 2014</td>
</tr>
<tr>
<td>8</td>
<td>Rio Arriba Community Health Council</td>
<td>Wednesday, November 12, 2014</td>
</tr>
</tbody>
</table>
Soil health is the capacity of the soil to function effectively and provide ecosystem services on a sustainable basis (Doran and Parkin, 1994). An important ecosystem service that the soil provides is to support crop production, upon which humans and many animals depend for subsistence. A healthy soil will be able to support crop production on a sustained basis and be less prone to erosion. Therefore, soil health is an attempt to bring together the chemical, physical, and biological aspects of the soil with the understanding that they are interrelated and that they must operate in synergy for optimum and sustainable soil function.

Since soil is such an important component of the natural ecosystem, careful management of the soil is essential to sustain its utility. Conventional commercial farming depends heavily on the careful management of soil nutrients to promote adequate crop yields of food, feed, and fiber. This has resulted in the development of precise nutrient analytical methods with accompanying recommendations to address nutrient deficiencies in different soils that are used for farming. While this strategy has improved productivity over a long period of time, scientists are now finding that managing soil for nutrients alone may not lead to sustainable crop production in the long term. Other aspects of the soil, including aggregate stability, infiltration rate, salinity, solidity, and mineralization potential, need to be addressed to attain the goal of sustainable crop production (Idowu et al., 2008).

Managing soil health is an important component for sustainable crop production. In healthy soils, physical, chemical and biological processes and functions drive the productivity of the soil. An important component of soil that integrates these three aspects is organic matter. One of the most critical factors in soil health management is the maintenance of a good level of soil organic matter which provides nutrition for living organisms. The diversity and functionality of soil organisms are highly affected by the quantity and quality of the soil organic matter (Carter, 2002). Soil management strategies should be focused on returning an amount of organic material that is sufficient to maintain or improve soil productivity and biological activity of the soil. The majority of soils in New Mexico have very low soil organic matter levels, and such soils are prone to degradation and erosion. These soils will also need high fertilizer inputs to ensure adequate nutrients for crop growth and yield. The physical properties of a soil are those characteristics that can be seen with the eye or felt between the thumb and fingers. They are the result of soil parent materials being acted upon by climatic factors (rainfall and temperature) and affected by relief (slope and direction or aspect) and
vegetation (kind and amount, such as forest or grass) over time. A change in any one of these factors usually results in a difference in soil formation or development. The important physical properties of a soil are color, texture, structure, drainage, and depth.

**Water**

Rio Arriba County has a unique blend of cultures and landscapes, of agrarian values, fertile valleys and expansive rangelands. It is a place where people have long settled, and is praised for its quality of life, climate and retirement opportunities. Both the Rio Grande and Rio Chama Valleys, which bisect northern New Mexico, are home to old and new residents, light industry, tourism and agriculture, all of which stake claims to water resources. These water resources must also serve the traditions and economic needs of Native American tribes and pueblos, and flow through traditional acequias (irrigation canals), considered the lifeblood of four-hundred-year-old Hispanic communities. The Rio Grande is also home to endangered silvery minnows in the last remnant of their historical habitat, and to flocks of migrating cranes and geese who gather in vast numbers to rest and seek refuge in riparian bosques (woodlands).

The Rio Grande—and the subterranean aquifers that it feeds in some regions—is the principal and often only water source for cities and farms from southern Colorado through New Mexico and into far west Texas. The vulnerability that these water users face together—especially in light of potential climatic and hydrologic changes—is indicated not only by their dependence on a sole source of supply but by the oversubscribed claims to and exhaustive use of this source (Hurd et al., 1999; Hurd et al., 2006). The level of use of surface supplies is so exhaustive that after the thirst is satisfied it is normal for the Rio Grande to merely trickle with salt-laden return flows and summer storm runoff for 180 miles until its confluence with Mexico’s Rio Conchos, just above Big Bend National Park near Presidio, Texas.

![](image)

New Mexico has the fourth lowest annual average precipitation in the nation, yet the state’s population has grown by over 13 percent since 2000 (whereas Rio Arriba’s population decreased) – a trend that is expected to continue. Increases in population and development, in the context of a lingering drought, will put great demand upon the state’s water and other natural resources; therefore the greater needed protection and management of Rio Arriba’s headwaters. While the state’s water resources have been fully appropriated, demand for water resources continues to grow.
Irrigators hold approximately 90 percent of the state’s surface water rights; other stakeholders interested in using surface water supplies must consider agricultural interests in any attempt to obtain water. Alternative uses of surface water include municipal, industrial, recreation, water to meet endangered species act requirements, interstate compact delivery obligations, and tribal water rights claims. As competition for this precious resource grows, Rio Arriba County’s participation in the water dialogue is critical to the viability of agriculture.

Surface water (rivers, lakes and streams) in New Mexico originates as rain or melting snow, but over 95% of that water evaporates or is transpired by plants. Most of New Mexico’s fresh water is stored as groundwater in aquifers or confining layers below the land surface, where it occupies small open spaces between sand or gravel and small fractures in rock.

New Mexico’s ground water resources are of vital importance in sustaining life, and must be preserved and protected for both present and future generations. Approximately 78% of New Mexicans depend on ground water for drinking water. 81% of New Mexicans are served by public systems with water derived from ground water sources and over 170,000 New Mexicans depend on private wells for drinking water. Ground water makes up nearly half of the total water annually withdrawn for all uses in New Mexico, including agriculture and industry, and is the only practicable source of water in many areas of the state.

Adequate supplies of uncontaminated groundwater are crucial not only to the health of our families but also for the continued growth of agricultural production and cutting-edge industries in New Mexico.

**Air**

Rio Arriba has some of the most beautiful skies on our planet, thanks in part to our good air quality. Plants, animals, and humans all rely on having clean air to breath. Protecting the quality of that air for a healthy environment, and alerting citizens to dangerous conditions is critical for our County. The effect of air pollutants on our health and ecosystems depends on the type of pollutant, how much is in the air, the amount of time exposed, and current health. Air pollutants can also indirectly affect our health. Air pollutants deposited in lakes or rivers affect the quality of the water we drink and pollutants deposited on land or water enter the food chain and bio-accumulate in food we eat. Some of the challenges to air quality in our area come from natural occurrences such as smoke from more recent catastrophic wildfires like the Cerro Grande in the Bandelier National Monument in the Jemez Mountains. Large amounts of smoke containing hazardous constituents from burning trees and debris poses acute health risks to those who are exposed to the heavy smoke, particularly the elderly, the young, and people with respiratory diseases. Others are brought about from dust storms and human activities such as paint and auto-body shops, emissions from transportation, and oil, gas wells of high concentrated toxins.
Plant & Animals

The wildlife and plant life in New Mexico is extremely diverse. The size, terrain and climate make it one of the more biologically diverse states in the nation. It is home to more than 4,500 different species of plants and animals. The life zones within Rio Arriba County include the alpine tundra, coniferous forests to the north and southeast, with woodlands and desert shrub lands spread throughout sporadically, and riparian areas along the Rio Grande and Rio Chama river valleys.

Plants consist mainly of hearty, drought resistant trees and plants, including Juniper, Cottonwood, Douglas fir, Russian Olive, Blue Spruce, Ponderosa Pines, as well as lower growing plants such as Russian Thistle (Tumbleweed), Sagebrush, and Prickly Pear Cactus. The wildlife population in New Mexico is as diverse as its land. In addition to elk, deer, and antelope, New Mexico Department of Fish and Game report white-tailed rabbits, gray squirrels, gray foxes and wolves, coyotes, mountain lion and bobcats. The New Mexico state animal is the black bear, which was adopted in 1963.

Birds found in New Mexico include the American goldfinch and crow, chipping sparrow, cactus wren, hummingbird, great blue heron and the common raven. The roadrunner was adopted as the state bird in 1949. The cutthroat trout became the state fish in 1955, but because of river diversions and droughts, New Mexico has lost some of its fish species including the shovelnose sturgeon and the American Eel.

Most of the land animal species that currently live in the Rio Grande valley were there before the arrival of Coronado in 1540. The Rio Grande Valley supports at least three turtle species, nine lizard species and 13 snake species. There are over 60 species of
mammals in the bosque, most of which are rodents. There are 11 species of bats in the valley, and well over 200 species of birds that use the valley as their home or mating grounds. Throughout the state there are more than 1100 species of amphibians, reptiles, mammals, birds, invertebrates, and fish. Below is a table of taxonomic groups and number of wildlife species specific to Rio Arriba County.

<table>
<thead>
<tr>
<th>Taxonomic Group</th>
<th># Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>33</td>
</tr>
<tr>
<td>Amphibians</td>
<td>11</td>
</tr>
<tr>
<td>Reptiles</td>
<td>25</td>
</tr>
<tr>
<td>Birds</td>
<td>249</td>
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<tr>
<td>Mammals</td>
<td>90</td>
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<tr>
<td>Mollusks</td>
<td>22</td>
</tr>
<tr>
<td>Crustaceans</td>
<td>2</td>
</tr>
<tr>
<td>ephemeroptera; Mayflies</td>
<td>20</td>
</tr>
<tr>
<td>Odonata; dragonflies</td>
<td>14</td>
</tr>
<tr>
<td>Orthoptera; grasshoppers &amp; Crickets</td>
<td>62</td>
</tr>
<tr>
<td>Coleoptera; Beetles</td>
<td>1</td>
</tr>
<tr>
<td>Lepidoptera; moths &amp; butterflies</td>
<td>156</td>
</tr>
<tr>
<td>Spiders</td>
<td>9</td>
</tr>
<tr>
<td>Misc. Arachnids</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total:</strong> 701</td>
<td></td>
</tr>
</tbody>
</table>

**Human Environment**

Human impacts to the earth’s natural resources and environmental impacts from technology often result in entropy – commonly known as a measure of disorder. Whenever material resources or energy are moved around or manipulated by technology, environmental consequences are inescapable. By establishing transportation networks, factories, buildings, and water reservoirs constructed with dams, humans have created technological order, but only at the expense of increasing disorder in the environment. The inefficient use of land resources and energy, among other environmental problems, have increased entropy “disorder”, which is correlated with negative impacts to the environment. Measuring, monitoring and modeling urban sprawl and its impacts are of critical importance for land use planners and politicians especially when land conversion of vulnerable areas for human use may compromise the ability of ecosystems to provide essential goods and services.

*Sustainability “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”*

The future of our natural resources and terrestrial ecosystems is the recognition that global change is much more than climate change. It is the net effect of the individual and interactive effects of changes in land use, atmospheric composition, biological diversity, and climate change. Land use is changing – this involves conversions from one type of
land cover to another, as well as changes in management practices such as fertilization, and changes from harrowing to zero tillage. It includes changes in availability of surface water and river flows. The combination of economic development and concurrent advances in technology will result in an increased per capita consumption of natural resources. The ecological consequences of these developments will inevitably include further intensification of land use practices and further conversion of natural vegetation to cultivated lands, mostly in areas that are currently marginal for cropping. A sustained increase in global production will almost surely be achieved, but it will have considerable impact on land use and on ecosystems in general. Climate change makes the task of producing the additional food and fiber more uncertain. The availability of resources will continue to constrain agricultural development in many regions. For example, water availability, already a major problem, is likely to become increasingly limiting as agricultural, industrial, and urban demands for water compete more directly with the need to maintain river flows for conservation and waste removal and purification purposes.

Anthropogenic activities within Rio Arriba County include:

- **Agriculture**: Fishing, Irrigation, Topsoil Loss, Meat & Poultry Production, Essential Oils, Fruit, Berries, Nuts, Seeds and Heirloom Vegetables, Beekeeping, Hatchery, Forage Crops Production
- **Energy industry**: Coal mining and burning, Electricity generation, Oil Shale Industry, Petroleum, Reservoirs
- **Mining**: Sand, Gravel & Hard Rock
- **Transport**: Aviation, Roads, Railroad
Goal 1: Protect, maintain and strengthen our connection and working relationship with the land and water.

- **Strategy 1:** acquire water throughout the county and apply them to beneficial uses in the watershed of their origin.

- **Strategy 2:** Introduce legislation that encourages return flow credits for agricultural activities by repealing the "use it or lose it" scenario, and by encouraging the use of acequia banking and acequia transfer legislation to help develop and regulate the local water rights market.

- **Strategy 3:** Recognize and encourage the adjudication of water rights of all acequias in Rio Arriba County to include historic uses, customs and practices as per the Treaty of Guadalupe Hidalgo.

- **Strategy 4:** Encourage acequia associations to adopt the water rights transfer by-law, uphold acequia transfer authority and maintain water rights within their original watersheds.

- **Strategy 5:** Encourage productive uses of land and water, in order to protect and enhance the viability of agricultural lands within the County.

- **Strategy 6:** Encourage flood irrigation of irrigated lands to replenish groundwater aquifers.

- **Strategy 7:** Provide information to the public, visitors and nonagricultural residents of the County about the existence, validity, and importance of the county's agricultural operations and activities.

- **Strategy 8:** Work with existing watershed groups to identify and prioritize beneficial uses, on a watershed by watershed basis, to include new local agricultural, storage, ranching, recreational, domestic and municipal uses and supplies.

- **Strategy 9:** Provide incentives and pursue funding for agricultural measures such as appropriate drip irrigation, laser leveling, etc. in partnership with USDA, County Soil and Water Conservation Districts and the NMSU Cooperative Extension Service.

- **Strategy 10:** Support state enabling legislation to establish and fund the purchase of development rights (PDR) for irrigated lands.

- **Strategy 11:** Identify funding sources, such as USDA Value Added Grants, to support agriculture business diversification, and work with the NMSU Cooperative Extension office on identifying opportunities and training for crop specialization.

- **Strategy 12:** Support and expand community-based sustainable agricultural programs such as 4H programs, Community Supported Agriculture (CSA) and
Community Stewardship Organizations (CSO).

- **Strategy 13:** Acknowledge traditional place-names as cultural patrimony by utilizing, restoring or instituting a preference for the traditional place names or at least the mention of variant place names in the conduct of county business and in the promotion of our region except where updated place names are necessary for emergency services purposes.

- **Strategy 14:** Create a Rio Arriba Natural Resource Advisory Board that will: gather data and policy, work with other agencies; federal, state, and local, provide assessments of the data and policies, develop and recommend natural resource policies to the Board of County Commission in order to protect our natural resources for the future.

- **Strategy 15:** Develop a Rio Arriba County Food Council that will: gather data and policy, work with other agencies; federal, state, and local, provide assessments of the data and policies, develop and recommend natural resource policies to the Board of County Commission in order to benefit future of the County’s communities.

- **Strategy 16:** Encourage County residents to work with restoration and conservation groups to restore and manage their irrigated agricultural land.

- **Strategy 17:** Support the creation of a non-profit Rio Arriba Land Trust or extending existing land trust services into Rio Arriba County, to administer conservation easements and a purchase of development rights (PDR) program for interested land owners.

- **Strategy 18:** Encourage the charitable donation of historic, cultural, and scenic conservation easements by interested landowners to qualified non-profit land banks/land trust and other organizations to reduce State and Federal income and inheritance taxes under NM Laws 1995, Schedule PIT-CR, Form RPD-14282 and IRS Form 990 and IRS Form 8283.

- **Strategy 19:** Encourage the acequias and mutual domestic providers to work with the County, OSE, tribal governments and other local organizations to establish restoration and conservation programs, riparian buffers, and other methods to protect the quality of surface and groundwater, increase water recharge capacity, and ensure future supplies of groundwater.

- **Strategy 20:** Partner with community organizations such as the Northern Rio Grande National Heritage Area, New Mexico Acequia Association, and Vecinos del Rio, etc., to develop community based strategies for the preservation of agrarian, historical, cultural, and archeological resources.

- **Strategy 21:** Provide information to farmers and ranchers through the NMSU Sustainable Agriculture Science Center in Alcalde, Rio Arriba Extension Office, Northern New Mexico College’s Environmental Science program etc., on producing sustainable crops and livestock that have a higher yield, higher market
value and are driven by a value chain.

- **Strategy 22**: Establish and maintain cooperative relationship with the Office of the State Engineer where the state’s water resources in regards to water quantity, appropriation, and distribution of surface and ground waters are administered.

- **Strategy 23**: Establish and maintain cooperative relationship with NMED and focus on protecting the quality of our waters and assure safe and effective infrastructure for delivering clean water to our communities.

- **Strategy 24**: Work cooperatively with federal, state, and conservation organizations to implement best management practices (BMPs) for reducing nonpoint source (NPS) pollutants.

- **Strategy 25**: Develop work plans to include watershed association development, riparian area restoration, spill response, and treatment of abandoned mines.

- **Strategy 26**: Protect the quality of our surface and ground water sources from existing or potential contaminants.

**Goal 2: Map and inventory natural resources in the County.**

- **Strategy 27**: Continue to map all irrigated agricultural parcels and identify the irrigated lands that have water rights at risk of loss.

- **Strategy 28**: Map all acequias and acequia easements, identifying priority dates of water rights.

- **Strategy 29**: Map Mutual Domestic Water Consumers Associations, delineate the watersheds that serve them and identify potential growth based on water availability.

- **Strategy 30**: Map and inventory ground water aquifers, including type, quality and quantity of water, create models to better understand the potential connectivity of aquifers and determine and prioritize need for protection.

- **Strategy 31**: Map and inventory the location of timber; including timber type, diameter, and health of stands.

- **Strategy 32**: Map wildfire potential hazards, threats and risk and prioritize thinning projects to protect the public, property and infrastructure.
• Strategy 33: Map and inventory the location of sand and gravel; including quality of material, quantity of material and community need.

• Strategy 34: Overlay soil; quality, type, and depth in the County on to existing irrigated agricultural lands, range lands, precipitation maps, topographic maps to identify prime agricultural lands.

• Strategy 35: Map and inventory existing range land quality in the County and overlay on to large ranch parcels and create large lot zoning districts.

• Strategy 36: Map and inventory critical wildlife corridors.

• Strategy 37: Map and inventory the location of existing and potential energy resource production; including type and quantity.

• Strategy 38: Map and inventory the location of scenic views and view sheds within the County.

• Strategy 39: Map and inventory recreation sites in the County and create an updated outdoor recreation guide.

• Strategy 40: Map and identify federal land (dry land) near existing communities suitable for future community development.

• Strategy 41: Map slopes over 20% in the County develop an escarpment protection ordinance to discourage development on sharp slopes.

• Strategy 42: Map and inventory potential green energy locations for solar, wind, geothermal and biomass.

• Strategy 43: Map and create critical management areas for sensitive natural resources such as; aquatic habitats, alluvial aquifers, irrigated agricultural lands, floodplains, riparian areas, and other natural resources such as caving areas etc.

Goal 3: Encourage property owners located in Critical Management Areas designated and mapped in this plan to manage, reclaim and enhance these areas.

• Strategy 39: Provided information for property owners located in Critical Management Areas that encourages them to manage their lands in a way that return natural function to the land, promotes bio-diversity, and improves range quality for livestock and wildlife.

• Strategy 40: Encourage wildlife management through partnerships between the New Mexico Department of Game and Fish impacted property owners and livestock permitees.

• Strategy 41: Protect and enhance riparian areas, springs, wetlands and river and stream corridors by, promoting and implementing riparian restoration, re-
vegetation, fencing enclosure projects and by minimizing the use of toxic herbicides especially in the Critical Management Areas designated in this Plan.

- **Strategy 42**: Protect Critical Management Areas for reproduction of mammals, amphibians, reptiles, birds etc.

- **Strategy 43**: Work with the New Mexico Department of Game and Fish and land owners to create better wildlife and critical habitat data for the County.

- **Strategy 44**: Request the Department of Game and Fish review and suggest conditions to minimize the cumulative impacts from new development on wildlife and habitat.

- **Strategy 45**: Work with property owners, state forestry department, BLM, and the Forest Service to identify and map rare plant locations.

**Goal 4**: Protect the region’s water supply and quality by maintaining the natural function of the land and pursing funding for water shed studies and management.

- **Strategy 46**: Support and encourage state legislation to protect the watershed from invasive species in the County.

- **Strategy 47**: Maintain or increase high elevation snow retention through watershed management such as thinning and minimizing development.

- **Strategy 48**: Discourage development in floodplains in order to maintain flood and water storage capacity.

- **Strategy 49**: Encourage property owners to return natural function to land that has been disturbed or degraded such as reclaiming unused roads.

- **Strategy 50**: Collaborate with the Office of the State Engineer, Game and Fish Department, the Bureau of Land Management, the Forest Service, and other agencies to ensure that standards developed to protect the newly created Critical Management Areas are understood and cooperatively enforced by all concerned agencies.

- **Strategy 51**: Work with FEMA and other local governments to improve and create digital floodplain mapping including new studies. and amend county floodplain ordinance to appropriate standards and to better address the concerns of development in or in proximity to the floodplain.

- **Strategy 52**: Pursue funding at New Mexico State water funding institutions such as the Water Trust Board, the NM Legislature and the New Mexico Finance Authority for a variety of groundwater studies, watershed protection and restoration treatments especially in Critical Management Areas

- **Strategy 53**: Pursue funding for water and wastewater maintenance and development projects from state and federal sources such as the State Water Trust Board, State Legislature, and NM Finance Authority.
• **Strategy 54:** Support the establishment of Watershed Groups involved in developing a Watershed Restoration Action Strategy (WRAS) for funding of watershed improvement activities such as EPA/NMED 319 funds.

• **Strategy 55:** Pursue funding to compile all existing hydrological studies of the county, map and identify all aquifers in the County and their production capacity, and amend development regulations to require all new development to monitor aquifer levels for the life of the development.

• **Strategy 56:** Coordinate and integrate ground and surface water and watershed planning with the Rio Arriba County Regional Water Plan, the New Mexico State Water Plan and the New Mexico State Forestry Watershed Plan, the Carson National Forest Ten Year Plan and the BLM Rio Arriba Resource Area Management Plan.

• **Strategy 57:** Working with the Office of the State Engineer and Create a 40-year water plan for Rio Arriba County in order to further protect water rights.

**Goal 5:** Work with private property owners, state and federal agencies to restore existing range land and encourage the management of wildlife to prevent overgrazing and further degradation.

• **Strategy 58:** Reclaim, reseed, restore degraded or unproductive range land (such as unused roads) and wildlife habitat to allow for more grazing permits and hunting permits.

• **Strategy 59:** Identify and map range land type and quality and prioritize lands for conservation, and encourage County residents to work with restoration and conservation groups such as Soil Conservation to restore, conserve, and manage their grazing lands.

• **Strategy 60:** The County, in partnership with the USDA and Cooperative Extension Service, shall provide and assist interested ranchers and farmers about benefits of placing conservation easements on their property in order to take advantage of the tax benefits offered by State and Federal legislation.

• **Strategy 61:** Encourage NM Game and Fish Department to manage big game to insure a balance with grazing activities, policies such as allowing for more hunting permits in drought or dry years to minimize competition between elk and cattle should be considered and implemented.

• **Strategy 62:** Provide information to ranchers about best management practices and encourage responsible ranching to conserve, enhance, and protect the land for future generations.

• **Strategy 63:** Encourage federal and state agencies to manage wild horse populations especially on traditional grazing tracts.
• **Strategy 64:** Strategic planning to ensure all air quality standards are met and maintained.

• **Strategy 65:** Enforce air quality regulations by cooperating with federal and state agencies and through the permitting process.
The arrangement of communities and land use in Rio Arriba County reflects historical settlement patterns of the area. The majority of communities in the County were settled in the 1700s and 1800s, under Spanish and Mexican rule. The Laws of the Indies dictated town design at that time. This law required the establishment of a centralized plaza, surrounded by homes sharing common walls, where commercial and economic activities were concentrated. Outside of the plaza, the land grant system assigned long, narrow parcels of land known as *lineas* to settlers. These parcels originated in the river bottoms and stretched into the mountains, providing all the necessities for survival—irrigated land for crops; dry land for a home; grass lands for grazing; and mountainous areas for hunting, gathering and timber. *Acequia* or ditch systems supported irrigated agriculture by diverting water from rivers. Utilization of this system allowed traditional communities to support mixed land uses such as residential, commercial, and public uses within the community center, while leaving agricultural lands, grazing lands and forest lands open to economically sustain the community. This aerial photo of the Truchas community illustrates these traditional land use patterns and how they are still in effect today.

The land grant system broke down in the late 1800s and early 1900s because the U.S. government did not recognize communal lands as private property, and subsequently federalized them as forest reserves and national forests. Millions of acres of forest and grazing lands, once communally held, came under management and control of the U.S. government. As populations grew the demand to build on irrigated agricultural land increased. This food producing land now has to support residential uses, grazing and business as well as agriculture.
By the end of World War II the traditional trade and barter system was no longer in use. Beginning in the 1880s local people went in seek of a wage to be able have cash to acquire machinery and housing materials provided by the rise in industrial development across the nation. Many worked seasonally in mines in Colorado. After the development of Los Alamos National Laboratory, major state and federal roads were improved, allowing easier movement of people and goods, and resulting in the final undoing of traditional land use patterns modeled after the *Laws of the Indies*.

Today, several traditional communities in Rio Arriba County, such as Abiquiu, Chimayo, Cordova, and Truchas, have maintained some element of their traditional plazas. However, most communities have shifted away from higher density plaza centers to low-density, single family housing, which accounts for the majority of housing in the County today. Today, low-density single-family housing and agricultural land uses dominate land use throughout Rio Arriba. Often, key agricultural lands sit adjacent to low density housing, with no centralized plan for residential development.

Just as homes have migrated from the plaza center to surrounding agricultural fields and dry lands, commercial businesses have abandoned the plaza for highway frontage. The aerial photo of Hernández illustrates the shift away from the village center to scattered residential and commercial development.
The Northern Rio Grande National Heritage Area (NRGNHA) was created on October 12, 2006 by action of the US Congress through Public Law 109-338. The NRGNHA provides an opportunity for Rio Arriba County to engage in larger, regional planning initiatives with Taos and Santa Fe Counties, and to participate in the development of individual communities within Rio Arriba. It designated the Counties of Taos, Santa Fe, and Rio Arriba as the boundaries of the National Heritage Area, recognizing the continuity of the unique cultures that have settled in and inhabited the area of North Central New Mexico over many centuries. The NGRHA also identified the primary purposes of the National Heritage Area management entity and the nature of expected relationships among the various participating government entities.

The National Heritage Area is managed by a non-profit entity, Northern Rio Grande National Heritage Area, Inc., which was charged to: create a Management Plan for the Heritage Area including recommendations for the conservation, funding, management, and development of its resources; provide an inventory of the cultural, historical, archaeological, natural, and recreational resources of the Heritage Area; provide recommendations for educational and interpretive programs and analyze ways in which local, State, Federal, and tribal programs may be coordinated to promote the purposes of the legislation. The Management Plan was submitted to the Federal Department of the Interior and was approved by the Interior Secretary, leading to the release of Federal funding that may be used in partnership with communities and governmental agencies to implement community-based heritage projects and contribute toward local economic development.

The strategic goals established within the Heritage Area Management Plan are aligned with many of the goals found in the County’s Comprehensive Plan. Key strategies of the NRGNHA Management Plan are to: Support traditions, heritage and culture to enhance understanding and awareness of the Heritage Area’s stories and resources; create partnerships to collaborate in achieving cultural preservation; and to promote economic development and heritage tourism. These strategies coincide with the County’s own goals to protect and maintain natural resources, to strengthen opportunities for arts and cultural businesses, to promote sustainable agriculture and agricultural business development, and to create and market outdoors-oriented, historical and culturally-based tourism.

The Planning and Zoning Department Director serves as the County’s representative on the NRGNHA Board of Directors. In addition to participating in the Board meetings and public outreach events, the County will establish a formal memorandum of agreement with NRGNHA to partner in promoting common goals and strategies. In this manner, Rio Arriba County joins Santa Fe County, which also participates on the NRGNHA Board and has established relationships to provide shared funding and staff resources to support the work of the Heritage Area.
Rio Arriba County’s first land use regulation was its subdivision ordinance, *Land Development Regulations*, adopted in 1973, revised in 1982 and 1986, and amended in 1986 and 1987. Actual subdivision review and approval began in 1993, when the Planning and Zoning Department was created. In August of 1995, Rio Arriba County adopted its first zoning ordinance, the *Design and Development Regulation System*, employing a performance-based approach that mitigates site-specific impacts such as traffic, parking and use intensity, rather than geographically separating land uses into discrete zones.

The *Design and Development Regulation System* creates a single, county-wide zone known as the County Residential Agricultural District (CRAD). Within the CRAD, agriculture and single-family residential uses are permitted. Other land uses, such as, mixed uses, industrial and commercial developments may be allowed after a Use Permit is approved through a public hearing process. In addition to the CRAD there are overlay zones which regulate land that the Comprehensive Plan identifies as Critical Management Areas for irrigated agricultural land, riparian habitats, floodplains, or headwaters. Use permits are also required for oil and gas production, communication towers and sand and gravel and mining activities.

During the 2014 community hearing process some residents who live in older communities expressed interest in a local zoning system for the smaller lots frequently associated with traditional communities. They also expressed interest that these developed communities should have permanent Euclidian style zoning for areas of traditional villages where lot sizes, building development and land uses do not conform to current regulations.

**Critical Management Area(s) (CMAs) and Overlay Zoning Districts**

The 2010 Comprehensive Plan identified ecologically Critical Management Areas (CMAs) that could be regulated by application of specific development standards within zoning overlay districts for each of the CMAs. The goal of CMAs is to protect vital areas and environmental features such as streams, rivers, irrigated farmlands, floodplains, and critical wildlife habitat that contribute important ecologic, economic, and social value to the county. Overlay zoning districts were incorporated into the Design and Development Regulation System, the Zoning Ordinance, by Ordinance 2012-001. Maps of the Critical Management Areas may be found in the Appendix. A revision is anticipated for 2015.

**Headwaters Critical Management Area**

The Headwaters CMA, as mapped and defined in this plan, is intended to provide protection to aquatic ecosystems that receive an average of more than 24 to 50 inches of annual precipitation a year in the form of rain and snow, beginning at 7,000 feet in elevation. These areas contains subalpine forests and sizable aquatic habitat including wetlands such as springs, seeps, cienegas, streams, ponds, and lakes which make up the headwaters to much of Rio Arriba’s water supply. Besides aquatic habitat for fish,
reptiles, and amphibians, this CMA also contains critical habitat for terrestrial animals, such as the elk-breeding habitat. The natural resources present in the headwaters produce economic and social benefits through recreation, tourism, and seasonal harvesting.

High mountain snows might be the single most important natural resource in the County since they act as a naturally occurring equivalent of a man-made reservoir, with creeks, streams, rivers and acequias acting as a piping system delivering water to pastures, communities, and the state, as well as replenishing alluvial aquifers. Because of the extremely sensitive nature of these aquatic environments, the County proposes use of fish and aquatic macro-invertebrates as indicators of the health of this CMA for purposes of monitoring these areas. Rio Grande Cutthroat trout still live in the Headwater/Critical Habitat CMAs where the County continues to provide protection from future impact.

**Riparian/Floodplain Critical Management Area**

The Riparian/Floodplain CMA of the County is proposed to provide protection of ground water, critical wildlife habitat, food production, land development and water quality. The area includes a 300 foot buffer along the banks of watercourses as well as FEMA designated floodplains. In addition to aquifer recharge this CMA contains much of the flora and fauna diversity critical to adjacent ecosystems. Limitation of development within 300 feet of a stream will reduce negative impacts of development in floodplains. Regulation can diminish the intensity of flooding events, increased erosion, and increase in sediment load, loss of top-soil as well as ecological degradation and monetary losses.

The creation of riparian buffers is often promoted by state and federal agencies as a means of protecting aquatic ecosystems. Riparian buffers and the natural filtering process they provide are considered a best management practice. Large portions of Rio Arriba’s irrigated lands lie in, or adjacent to the floodplain. Thus, both wildlife and human food production benefit from floodplain and riparian protection since floodplains tend to have the richest soil for growing crops.

**Irrigated Agricultural Land Critical Management Area**

The 2010 Comprehensive Plan proposed protection of irrigated lands. Irrigated farmlands form the basis of the traditional farming system that has been the economic backbone of Rio Arriba’s communities and villages. These areas are frequently associated with the Riparian/Floodplain CMA, so protection of both is essential. In addition to growing food and crops, irrigated lands provide water storage and aquifer recharge, a very important hydrologic function for domestic wells. The zoning ordinance, Ordinance 2012-001, provides development standards limiting construction on an irrigated property to thirty percent of the irrigated area.
Goal 1: Encourage compact, compatible, and sustainable node development that reflects traditional settlement patterns.

- **Strategy 1**: Encourage small commercial, mixed use, and light industrial uses in communities and nodes.
- **Strategy 2**: Encourage clustered compact development that allows for walkable communities.
- **Strategy 3**: Encourage the use of compatible architectural style for development that reflects the existing community.
- **Strategy 4**: Identify and map possible nodes where commercial and mixed use area development should be encouraged based on existing development patterns including existing infrastructure, compatibility, and suitability for increased density. Encourage development in these compact node areas, particularly dryland development.
- **Strategy 5**: Encourage infill development that retrofits and utilize existing buildings and infrastructure.
- **Strategy 6**: Encourage compact node development on dry land in order to maximize efficiency of services and minimize land disturbed.
- **Strategy 7**: Encourage sustainable development that use water conservation measures, such as, low-flow fixtures, xeriscape landscaping, the use of drip irrigation, gray-water, rain water harvesting through education programs.
- **Strategy 8**: Create community districts within identified community nodes for future development where conducive to custom, culture and tradition.
- **Strategy 9**: Create incentives such as density bonuses, smaller lot sizes, reduced fees for new development located in communities and nodes identified in this plan.

Goal 2: Inventory and encourage the use of existing facilities and infrastructure such as roads, existing buildings etc. for new development.

- **Strategy 10**: Encourage and create incentives for the use of existing facilities/buildings and infrastructure such as roads, for new development.
- **Strategy 11**: Encourage the retrofitting of existing buildings before developing new buildings.
- **Strategy 12**: Encourage development that proposes to utilize unused water rights and agricultural land for agricultural purposes including wineries, small breweries, and other local food industries.
• **Strategy 13:** Inventory and map existing infrastructure and buildings and provide information for new businesses wanting to locate in the County.

**Goal 3:** Encourage the use of green building materials and energy efficiency for new development.

• **Strategy 14:** Create incentives for the use of green building materials and energy efficient design for new development.

• **Strategy 15:** Encourage the retrofitting of existing buildings before developing new buildings.

• **Strategy 16:** Support state legislation to provide tax credits for green building and energy saving techniques that reduce greenhouse gas emissions.

• **Strategy 17:** Prepare a "Rio Arriba Green Building Guide" that describes sustainable development practices and green building techniques to reduce greenhouse gas emissions and include it with subdivision application packets.

• **Strategy 18:** Insure all new County buildings are energy efficient and conduct energy audits on older county buildings.

**Goal 4:** Create overlay zoning districts to protect Critical Management Areas by limiting the permitted uses and amount of development, requiring clustering, and develop higher standards for large scale and heavy industrial development located in Critical Management Areas.

• **Strategy 19:** Require proposed large scale and heavy industrial development in critical management areas to evaluate how the development will contribute to the overall cumulative environmental impacts within the specific watershed or eco-region. Including a discussion of possible impacts on migratory bird and animal patterns, flora, habitat fragmentation, impacts on soil stability, erosion, drainage, and terrain management, impacts on air and water quality, and an estimate of the total acreage to be taken out of production.

• **Strategy 20:** Amend County Ordinances to require applicants evaluate the possible impacts of proposed large scale development on existing wildlife habitats, migration corridors as defined and mapped by the New Mexico Department of Game and Fish or the County.

• **Strategy 21:** Create an Irrigated Agricultural Overlay Zoning district in the Design and Development Regulation Ordinance, and adopt development standards that will maintain the agricultural viability of the property.

• **Strategy 22:** Create a Headwaters Overlay Zoning district in the Design and Development Regulation Ordinance, and adopt development standards that will protect this critical habitat both terrestrial and aquatic from fragmentation and degradation caused by new development.
• Strategy 23: Create a Riparian Floodplain Overlay Zoning district in the Design and Development Regulation Ordinance, and adopt development standards that will protect this critical natural resource and habitat from degradation as a result of development.

• Strategy 24: Require new development located in critical management areas to cluster and locate in a manner that reduces the amount of new roads, driveways, and other surface disturbances in order to minimize fragmentation, degradation and the loss of these critical lands.

• Strategy 25: Create large lot zoning districts to protect farms, ranches, and forest from fragmentation and loss of viability.

Goal 5: Amend existing or develop new ordinances to encourage new development that is compatible with the proposed location and discourage development that is not compatible or in unsuitable locations.

• Strategy 26: Create two zoning districts for oil and gas develop one for the western half of the county with administrative process called the Energy Resource Development District and the other for the eastern half of the county with a special use public hearing process called the Frontier District.

• Strategy 27: Create an escarpment ordinance for slopes over 20% and create additional standards such as engineering analysis and design, for development in these areas.

• Strategy 28: Create different categories of use permits in the Design and Development Ordinance based on type of development, size and intensity of development and the negative impacts of the development.

• Strategy 29: Amend County floodplain ordinance to included digital mapping and higher standards for development in floodplains such as a 1 foot or 2 foot freeboard.

• Strategy 30: Amend the Irrigated Agricultural Land Protection Ordinance to improve its effectiveness in conserving agricultural lands within subdivisions.

• Strategy 31: Amend the summary subdivision process and development standards, to require applicants to provide more site-specific information to address the suitability of soils to support proposed; buildings, roads, waste water systems, and drainage.

• Strategy 32: Amend existing ordinances to develop new standards that establish minimum setbacks from acequias for easement purposes and protect water rights at risk of loss by requiring them to be identified and encouraging the application of those water rights to a beneficial use that is within the watershed, and used on agricultural lands.
• **Strategy 33:** Increase the amount of environmental liability insurance requirements for oil and gas development located in Critical Management Areas to 10 million dollars and develop appropriate insurance requirement for other heavy industrial uses with the potential to contaminate these areas.

**Goal 6:** Require baseline studies, insurances, additional environmental information, reclamation, and additional standards for large scale land uses and heavy industrial land uses.

• **Strategy 34:** Amend the Oil and Gas Ordinance to require applicants in the Frontier District to submit a comprehensive hydrographic survey, including modeling of ground and surface water, a depiction of potential conduits and surface and sub-surface contaminant pathways, and an evaluation of how injection wells and ground water draw down from oil and gas development will affect existing groundwater resources prior to entering a producing field development phase.

• **Strategy 35:** Require all new oil and gas development to depict and map all possible contaminant pathways and provide detailed plans as to how contaminants will be kept out of those pathways and include remediation and abatement plans should contaminants enter the pathways.

• **Strategy 36:** Require all proposed developments involving resource extraction provide a water budget detailing the source, quality, and quantity of all water to be used for the duration of the development and provide a reclamation plan detailing how all disturbed land will be restored to productivity once it is no longer utilized in the development activities.

• **Strategy 37:** Require all proposed developments involving resource extraction proceed in phases so that one phase is reclaimed before another is begun as to minimize cumulative impacts and the amount of habitat fragmentation.

• **Strategy 38:** Limit the number of oil and gas wells in the Frontier District operating at one time.

• **Strategy 39:** Require environmental liability insurance for oil and gas development in the Frontier District.

• **Strategy 40:** Create a hard rock mining ordinance. DONE

• **Strategy 41:** Create an ordinance that prevents hill top mining.

• **Strategy 42:** Require all developments to reclaim roads and any other sections of land that were temporary used for the development but are not needed for the development’s future uses.

• **Strategy 43:** Amend development ordinances to require that special use permit applicants disclose any and all toxic chemicals and pesticides proposed to be used in the activities of the development.
• **Strategy 44:** Require water monitoring wells be installed for all sub-surface resource extraction and all sub-surface injection activities in the Frontier District.

**Goal 7:** Minimize the impacts of individual septic systems and wells while encouraging community water and wastewater system.

• **Strategy 45:** Encourage property owners of outdated or inadequate septic tanks and leach fields to improve their existing systems, such as through tax incentives or low rate loans, and provide for more stringent county guidelines and inspections.

• **Strategy 46:** Amend subdivision and development ordinances to require applicants to test the onsite soil’s ability to support a septic system to at least ten feet (10’) below the surface.

• **Strategy 47:** Require new development to connect to nearby community water and wastewater systems with adequate capacity, and allow higher density on lots with existing development through the use of shared wells and septic systems, or by connection to community water and wastewater systems.

• **Strategy 48:** Encourage the expansion and creation of new mutual domestic water associations and sanitation districts through land use regulation and partnerships at the local level, and through support of funding requests and favorable community system legislation at the state level.

• **Strategy 49:** Require all new development to provide adequate fire suppression and protection infrastructure for all current and future development proposed in the application.

• **Strategy 50:** Amend Subdivision regulations to allow lot sizes smaller than the ¾ ac min. for advanced on-site liquid waste systems or for shared agreements as approved by NM Environment Department.

**Goal 8:** Require development provide infrastructure to improve or maintain existing services.

• **Strategy 51:** Require development agreements and/or bonds be made for all new subdivision development and other developments to ensure that infrastructure commitments made in the application are fulfilled.

• **Strategy 52:** Develop impact fees and require development projects that heavily impact public infrastructure to support the development and maintenance of that public infrastructure.

• **Strategy 53:** Encourage development activities that provide training or education components and investigate the possibility of creating incentives within the development code for proposed private developments or businesses that would provide education, training, or other public services as part of their operations.
• **Strategy 54:** Require large scale developments to provide a donation of land for community facilities such as fire stations, parks, and community centers.

**Goal 9:** Encourage renewable energy development while protecting the environment.

• **Strategy 55:** Develop and ordinance to address commercial renewable energy production and the potential negative impacts.

• **Strategy 56:** Encourage and create incentives for individual property owners to pursue renewable energy for individual use.

• **Strategy 57:** Provided incentives for new developments to include renewable energy where economically feasible.

• **Strategy 58:** Amend the Subdivision Regulations and the Design and Development Regulation System to incentivize the utilization small scale renewable energy projects on homes, businesses, and larger developments.
ECONOMIC DEVELOPMENT

Income

Economic conditions in Rio Arriba County lag behind many areas of the state, partially explaining a significant decline in population over the past decade. United States per capita income (U.S. Census 2008-2012) is $28,051 and median household income (U.S. Census 2008-2012) is $53,046. Per capita income for New Mexico is 15.3% (or $4,302) lower at $23,749 while New Mexico’s median income is also 15.3% (or $8,160) lower at $44,886. Almost 20% of the population falls below the poverty level; the percentage of Rio Arriba residents living in poverty has risen 2% since the last estimate.

Rio Arriba County employment statistics calculated from quarterly census of employment and wages data are as follows:

**Year 2010** - 5,725 individuals were employed in all industries. Health care and social services dominated other sectors, employing 1,635 persons (28.56%); retail trade employed 1,272 persons (22.22%); Arts, entertainment, and recreation accounted for the fewest number of jobs, employing only 16 persons. These industry trends are relatively similar at the state and national level where Health Care and Retail Trade rank higher than other sectors, though Rio Arriba is 13.31% higher in Health Care than the U.S at 15.25%. The high number of Rio Arribans employed in health care is the result of a thriving, high-quality hospital, a strong clinic system and several providers of specialized care. The prominence of health care as an industry is critical to the County’s well-being because unlike many other service industries, it provides meaningful work, a decent living wage, and benefits. Total wages earned in Health and Social Services in 2009 by Rio Arribans ($54,817,000) were approximately equal to the next two largest sectors, Retail and Hotels/Food combined ($54,099,000).
Year 2013 - A total of 4,795 individuals were employed in all industries with health care and social assistance again dominating other sectors, employing 1,375 persons (28.68%); retail trade ranked second at 1,073 (22.38%); Arts, entertainment, and recreation again ranked last, employing only 23 (.48%) individuals. Health Care and Retail Trade continue to employ a greater number of residents. All sectors shed jobs at approximately the same rates. While the percentage of jobs attributed to health care in Rio Arriba decreased by a scant 0.19% from 2010, the sector outstripped the 15.56% of the US economy attributable to health care, again pointing to strong, sustained and coordinated progress on the part of local providers, as well as their combined effort to adapt to and take advantage of the changes that accompanied the Affordable Care Act. The strong economic showing of the health care industry in Rio Arriba is the result of County efforts to support and encourage health planning and resource development through the Rio Arriba Community Health Council.

A portion of the expansion of health care jobs in Rio Arriba may be attributed to County development of the Rio Arriba Health Commons, a one-stop shop for health care in Española, to the construction, through Mil Levy moneys, of a new wing at Española Presbyterian Hospital, and to the development of a residential treatment facility in Velarde by the. Expansion of these facilities enabled providers to expand capacity to meet increased demand caused by the Affordable Care Act. Because demand is again outstripping capacity, expansion of the Commons to accommodate new staff is recommended. The RACHC and Española Presbyterian Hospital are conducting a promotional campaign encouraging Medicare recipients to enroll in hospital services with the goal of gaining a high enough percentage of the Medicare market share to qualify for $8 million in Medicare Sole Community Provider Funding. A portion of this funding could be dedicated to assisting the County to meet the needs of an exploding elderly population in future years.

Average weekly wages in New Mexico’s smaller counties with employment levels below 75,000 persons include three counties with above the $1,000 national average. Los Alamos County at $1,539 is obviously due to the National Laboratories; Lea and Eddy Counties average $1,023 and $1,001 respectively through energy (Oil-Gas) production.
Nationally, employment advanced 1.8 percent from December 2012 to December 2013, while in New Mexico wages fell 0.1% to 796.2 and an average weekly wage of $814.00. Employment statistics from December 2013 show Rio Arriba County with 9,205 employed persons with an average weekly wage of $628.00. Grant and San Miguel Counties are similar at 9,477 ($730.00) and 8,282 ($566.00) respectively.

**Quarterly Census of Employment and Wages**

**UNEMPLOYMENT**

Unemployment in Rio Arriba is consistently higher than in New Mexico, but follows the same general trends. The unemployment rate in Rio Arriba as of July 2014 was at 8.1%, compared to 7.3% for New Mexico. Currently, September of this year the total number of unemployed persons reported by the United States Department of Labor for Rio Arriba
County was 1,209 or 6.7%, while this is still 0.6% higher than New Mexico, nonetheless unemployment is the lowest since April 2009 when 1,183 were unemployed as the result of the recession. In February 2011 unemployment reached an apex in Rio Arriba at 1,755 people without work, but has since stabilized.

![Rio Arriba County Unemployment](image)

**EDUCATION**

Among 7 neighboring counties, Rio Arriba is comparatively one of the weakest in regards to high school graduation percentages and post-secondary education. Seventy eight percent (78%) of Rio Arriba residents have a high school diploma, compared to almost 83.4% for the state. Only 15.9% have a bachelor’s or higher post-secondary degree. By comparison, 25.6% of New Mexicans have at least a bachelor’s degree.

![Education](image)
EMPLOYMENT BY ECONOMIC SECTOR

Public Administration, which includes federal, state and local government, employs 37% of Rio Arriba County residents. Local government provides the majority of jobs in this sector, as well as more jobs than any single industry in the private sector, and is the only government category to have grown for the period 2001-2005. Local government growth is due in part to tribal government and casinos, which the New Mexico Department of Labor includes in this category. Beginning in 2006, federal government employment will decrease substantially due to the change of management at Los Alamos National Laboratories (LANL), now Los Alamos National Security (LANS). These employees will be counted under private sector industries. As of November 2006, LANS management announced immediate plans to reduce contract workers by 350, to 550 jobs, and to eliminate approximately 400 permanent positions through retirements and resignations. This will have a significant impact on Rio Arriba County.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Rio Arriba County, New Mexico</th>
<th>New Mexico -- Statewide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Industry: Total, all industries</td>
<td>4,795</td>
<td>610,148</td>
</tr>
<tr>
<td>NAICS 11 Agriculture, forestry, fishing and hunting</td>
<td>59</td>
<td>10,628</td>
</tr>
<tr>
<td>NAICS 21 Mining, quarrying, and oil and gas extraction</td>
<td>91</td>
<td>26,010</td>
</tr>
<tr>
<td>NAICS 22 Utilities</td>
<td>119</td>
<td>4,443</td>
</tr>
<tr>
<td>NAICS 23 Construction</td>
<td>264</td>
<td>42,216</td>
</tr>
<tr>
<td>NAICS 31-33 Manufacturing</td>
<td>115</td>
<td>29,083</td>
</tr>
<tr>
<td>NAICS 42 Wholesale trade</td>
<td>80</td>
<td>21,575</td>
</tr>
<tr>
<td>NAICS 44-45 Retail trade</td>
<td>1,073</td>
<td>91,750</td>
</tr>
<tr>
<td>NAICS 56 Administrative and waste services</td>
<td>196</td>
<td>41,544</td>
</tr>
<tr>
<td>NAICS 61 Educational services</td>
<td>42</td>
<td>8,836</td>
</tr>
<tr>
<td>NAICS 62 Health care and social assistance</td>
<td>1,375</td>
<td>106,556</td>
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<tr>
<td>NAICS 48-49 Transportation and warehousing</td>
<td>62</td>
<td>17,326</td>
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<tr>
<td>NAICS 51 Information</td>
<td>59</td>
<td>13,072</td>
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<tr>
<td>NAICS 52 Finance and insurance</td>
<td>157</td>
<td>21,162</td>
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<tr>
<td>NAICS 53 Real estate and rental and leasing</td>
<td>24</td>
<td>9,906</td>
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<td>NAICS 71 Arts, entertainment, and recreation</td>
<td>23</td>
<td>8,931</td>
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<tr>
<td>NAICS 72 Accommodation and food services</td>
<td>784</td>
<td>79,493</td>
</tr>
<tr>
<td>NAICS 81 Other services, except public administration</td>
<td>144</td>
<td>20,267</td>
</tr>
</tbody>
</table>

In the private sector, health care and social assistance, retail trade, and accommodation and food service provide the greatest number of jobs to Rio Arriba County residents. Along with construction, these industries also experienced the greatest growth from
Health care and social assistance provide more employment than any other private sector industry in Rio Arriba County, providing a major opportunity to retain young people within the community. Growing networks of community health centers, the creation of the Rio Arriba Health Commons, and expansion at the Española Hospital have contributed to increased employment in health care, which will likely continue. Job growth in health care and social assistance is encouraging, as these jobs are higher-skilled and higher-paying. Retail jobs increased, in part, through hiring at big-box retailers such as Wal-Mart and Lowes. However, wages for retail trade and accommodation and food service are generally low, and some retailers such as WalMart, rely on public assistance programs to supplement the extremely low wages and poor benefits they pay employees, placing undue burden on local, state and federal government.

Arts, entertainment and recreation, information, real estate and agriculture provide the fewest jobs in the private sector. Arts and entertainment ranks last in employment for Rio Arriba County. This suggests a dearth of wage-paying cultural activities and the relative absence of tourism. While there is some resistance to promoting tourism due to its impacts and its tendency to generate low-paying jobs, growth in arts and recreation could improve the quality of life for residents and provide opportunities for youth. Employment in real estate is also low; however, it has grown by almost 50% since 2001. This indicates growth in the housing market, likely due to Santa Fe and Los Alamos workers or retirees who have moved to the area for less expensive housing.

Finally, and most interestingly, agriculture ranks among the industries with the lowest wage-based employment within the County. Imposition of a monetary economy based on wages is a relatively recent development in Rio Arriba, and an outgrowth of the rise of Los Alamos National Laboratory. The majority of agricultural activity in Rio Arriba is informal and traditional, reminiscent of historical, subsistence, practices. Traditional agricultural practices in this region include small-scale fruit and vegetable cultivation, and small scale ranching and grazing. The lack of wages paid through agriculture is an artifact of the traditional barter economy based on exchanges of goods and labor that prevailed prior to the establishment of Los Alamos. Such exchanges form the backbone of Rio Arriba’s social support structure, and maintain its strong network of extended families. Hence, the Board of Rio Arriba County Commissioners has made it a top priority for preservation and growth, as has the Rio Arriba Community Health Council.

According to the U.S. Department of Agriculture’s National Agricultural Statistics Service, in 2007, there were 988 farms in Rio Arriba County and agricultural activities occupied nearly 1.5 million acres – almost a third of the County’s total land area. Out of thirty-three counties in New Mexico, Rio Arriba ranks 21st in cattle production and 7th in the production of sheep and lambs. Crop production in the County was valued at about 5 million dollars in cash receipts and nearly 12.5 million for livestock production. The longstanding practice of raising sheep and lambs, which provides material for local weavers, is just one example that illustrates how intimately linked the region’s agricultural practices are with the arts, culture, and heritage of the area.
TOURISM

Although several small unincorporated communities within Rio Arriba County, such as Abiquiu, Chama, Chimayo and Ojo Caliente, are tourist attractions, tourism is not a major industry in Rio Arriba County. As of the third quarter of 2006, lodging revenue for the City of Española was $520,279 for the year to date. In 2005, Española ranked 35th in the state for lodger’s tax and reported total lodging revenue of $1,822,939. By contrast, lodger’s revenue for the Village of Chama, which has less than 25% of Española’s population, was $2,004,602 in 2005. Lodger’s revenue for Chama has grown over the past year, with revenue of $1,089,216 for the third quarter of 2006, a 10.5% increase from the third quarter in 2005. Another indication of Chama’s gains in tourism is the Cumbres and Toltec Scenic Railroad. On October 15, at the end of its 2006 season, the Railroad had almost a 22% increase in sales. August and September were especially strong months, with 34% and 23% increases, respectively. In 2007, a fourth steam locomotive was added and a major track improvement completed.

OIL AND GAS

Oil and gas production in the western half of the County, known as the San Juan Basin, has produced enormous revenues for the state and has also provided local governments with a large portion of their yearly budget for the County. From 2003-2007, County oil revenues nearly doubled moving from $5.5 million dollars to just over $14 million dollars. Since 1950, the San Juan Basin has been an oil and gas basin of national importance. Currently Rio Arriba County has over 11,500 oil and gas wells on its portion of the San Juan Basin, mostly on Federal and Native American lands. Economically Rio Arriba has seen little in the way of service industries associated with oil and gas development, as most of these businesses are located in San Juan County. However there are communities in the County, such as Lindrith, that exist because of the oil and gas production that has supplemented traditional ranching since the 1950s. The total jobs from the oil and gas industry in Rio Arriba is not known due to the fact that many who work in Rio Arriba County live in San Juan County or their businesses are located in San Juan County. Currently the total number of new wells permitted for the San Juan Basin is over 300 a year with roughly half of those wells constructed in Rio Arriba County. The Energy Resource Development District designated and mapped in this plan has been created to allow for further oil and gas development in the San Juan Basin.

ECONOMIC DEVELOPMENT INITIATIVES

With limited land and water availability and employment reductions at LANS looming on the horizon, Rio Arriba County faces many challenges in retaining community members, growing existing businesses, attracting new businesses, training and educating youth, and creating jobs. Toward these ends, the various government entities within Rio Arriba County are engaged in various initiatives to benefit economic development.

The City of Española is focusing on infrastructure investment in water, wastewater and utility improvements. Through land ownership, the City controls several development
opportunities, including a five-acre parcel on old Main Street and vacant space within the Roybal Industrial Park, previously occupied by a call center. East and south of Wal-Mart and Lowe’s, privately owned land is ripe for development, and investors have expressed interest in building a hotel.

On tribal lands, some of which lie within or near Española, the Pueblos of Ohkay Owingeh and Santa Clara are expanding existing and developing new tribal enterprises. This will help create jobs and attract businesses and tourists to the County. Collectively, the Tribal governments in Rio Arriba County are already one of the County’s largest employers. Expansion and new development will include convention facilities, an industrial park near the Ohkay Owingeh General Aviation Airport, hotel accommodations, food and leisure businesses, and some new housing.

Prioritizing education and developing the skills of the local workforce is an important strategy towards making the County a more competitive and appealing place for industry and jobs. Local educational institutions need to gear their educational and training programs to meet the level and need of the local youth and the existing workforce. The lower levels of educational attainment in the County, along with the high drop-out rate, prove that obtaining a four year college degree may not suit the needs or desires of many of the County’s residents. Higher education institutions in the County need to offer more professional certifications and degrees developed to meet projected industry and job development in the area. For example, degrees geared towards energy and renewable energy are key elements needed to attract employers and spur growth, just as the nursing school at NNMC has played an important role in developing Rio Arriba’s growing healthcare workforce. In order to better engage students and address dropout rates, higher education institutions need to partner with local high schools and middle schools to offer pre-professional and college credit courses that help students make the link between the importance of their education and their professional futures, and make curricula relevant to their lives. Rio Arriba County must cultivate and reinforce its human resources as well as its natural ones in order to have a competitive advantage for prospective economic development in the region.

In the annual revisions of the Comprehensive Plan in 2010, the Planning and Zoning Department produced a map of development node areas created by drawing half (1/2) mile pedestrian walking shed boundaries in areas of existing cluster development, such as community centers. The creation and placement of these development node areas was reviewed and commented on by the public in county-wide public meetings. The designation of these development nodes is a preliminary step in the evolution of zoning regulations, in partnership with local communities, to facilitate compatible, infill, and cluster development, along with their proposed locations. A map of the development node areas is attached as Appendix I.
Goal 1: Strengthen and support opportunities for local arts and culture and associated businesses.

- **Strategy 1:** Work with the Greater Espanola Valley Community Development Corporation (GEVCDC) and the Regional Development Corporation to identify the needs of small and locally-owned arts and culture businesses/organizations and partner with regional economic development agencies to develop strategies to address these needs.

- **Strategy 2:** Promote the performing and visual arts, assist in identifying funding sources and markets, and identify models for artisan-based economic development projects through the Regional Development Corporation and other economic development organizations.

- **Strategy 3:** Expand the use of existing community facilities and programs that focuses on the expansion of local food and fiber.

- **Strategy 4:** Support local studio tours and farm tours and encourage the expansion of these events.

- **Strategy 5:** Encourage the film industry to film in the County and to create films about the history and culture of the area.

Goal 2: Identify and promote sustainable agriculture practices, identify new opportunities for new agricultural markets and encourage the construction of agricultural infrastructure to assist new and existing agricultural development and businesses in the County.

- **Strategy 6:** Work with the NMSU Cooperative Extension Service, Rural Events Center, Oñate Center and other organizations to identify opportunities for biomass production such as hemp, the construction of cold-frames for seasoned extension, and the implementation of farming strategies that protect and restore the local ecology.

- **Strategy 7:** Work with the Siete Del Norte Food Hub and the Rio Arriba County Food Council to develop and implement strategies and policies that encourage sustainable agricultural production.

- **Strategy 8:** Support the creation of new and expansion of existing agricultural-based businesses including value added products, small breweries, wineries, distilleries landscaping, businesses, flower shops, nurseries, seed businesses, aquaculture, etc.

- **Strategy 9:** Work with local and regional USDA programs to ensure outreach and assistance to agricultural producers.

- **Strategy 10:** Work with local and regional USDA programs to identify funding, technical assistance and outreach available to local producers that encourage economic viability, market opportunity and cultural sustainability.
• Strategy 11: Support the Food Coop within the County to serve local producers in the County with infrastructure such as cold storage, equipment and slaughtering capabilities.

• Strategy 12: Support the Food Hub Initiative and the County Food and Agriculture Policy Council in conducting a thorough assessment of the County’s agricultural economy including an analysis of both individual and institutional producers and consumers.

• Strategy 13: Promote the creation of Community-Supported Agriculture (CSA) organizations in partnership with the Sustainable Agriculture Center in Alcalde. Encourage local organizations, such as schools, hospitals, and senior centers to utilize CSAs.

• Strategy 14: Support local farmer markets, the Española Community Market and other local food co-ops for the sale of locally produced foods.

• Strategy 15: Research the introduction of high value niche market foods such as organic foods other high value crops such as herbs, hops, hemp, medical marijuana etc.

Goal 3: Inventory existing workforce and professional development opportunities in the region and work with Northern New Mexico College, the New Mexico Small Business Development Center, New Mexico State Cooperative Extension Program and LANL’s Technology Transfer Division to create a County-wide workforce training and education program.

• Strategy 16: Investigate opportunities and seek assistance from the Los Alamos National Laboratory’s Community Outreach and Technical assistance programs, SCORE, the New Mexico Department of Workforce Solutions and the Greater Española Valley Community Development Corporation (GEVCDC) to provide professional development learning opportunities in the County through both degree and non-degree courses.

• Strategy 17: Work with local and regional industry employers to identify and create scholarship opportunities for educational advancement of the local workforce.

• Strategy 18: Develop a scholarship fund for students and opportunities to pursue advanced degrees that encourage their retention as health care professionals in the community.

• Strategy 19: Partner with and provide support to the Youth Corps and other youth organizations to identify young adults’ needs and requirements for returning or staying in the County to live and work, and develop programs in response to those needs.
- **Strategy 20**: Work with Northern New Mexico College to develop a diverse array of four year degrees for health professionals in fields such as medicine, dentistry, midwifery, social work, psychology, counseling, early childhood education, and substance abuse.

- **Strategy 21**: Work with Northern New Mexico College, energy production industries, and other local educational institutions to develop certificate and degree programs in professions relating to the developing energy and renewable energy economies.

**Goal 4: Build provider capacity to expand health care workforce and services**

- **Strategy 22**: Expand the Rio Arriba Health Commons to include facility for increased delivery of primary care, dental care, behavioral health services and a family wellness center.

- **Strategy 23**: Increase Medicare Market Share at Española Presbyterian Hospital to 75%, enabling it to access SCP Medicare funding, and partner with it to fund services required by an expanding senior population.

- **Strategy 24**: Support the Rio Arriba Community Health Council to develop a long-term plan for meeting the needs of an expanding senior population.

- **Strategy 25**: Develop County Capacity to provide and bill for Medicaid- and Medicare-based services, along with other innovative funding sources.

- **Strategy 26**: Continue to adopt RACHC Health Profile as a Freestanding Health Planning Tool.

**Goal 5: Promote the use and purchase of local goods and services that support local businesses.**

- **Strategy 26**: Create a “Rio Arriba First” Business Directory of licensed local businesses and services within the County, and/or with individual communities such as Española and Chama, and link these business directories with all relevant websites within the County.

- **Strategy 27**: Identify areas of key areas of economic leakage and support the creation and recruitment of businesses that provide such products and services locally at a competitive price.

- **Strategy 28**: Support the Rio Arriba Food & Ag Policy Council in instituting a buy-local campaign and in create policy recommendation for how local public institutions can reform their procurement processes to institute a local preference option allowing them to utilize more local good and services.
• **Strategy 29**: Encourage businesses, organizations, and events that receive funding from the Rio Arriba County Lodgers and Tax Board to acknowledge the source of funding in their advertisements and promotional materials.

• **Strategy 30**: Investigate the feasibility of creating and locating a County business incubator within one of the designate commercial nodes.

• **Strategy 31**: Partner with the Española Valley Chamber of Commerce to educate and promote business readiness – with assistance from organizations such as the Greater Espanola Valley Community Development Corporation, SCORE, financial institutions, and Small Business Development Centers in the region.

• **Strategy 32**: Partner with NNMC and local non-profits to develop certification programs at community centers for home day care providers.

**Goal 6**: Encourage the creation, attraction and retention of home-based businesses.

• **Strategy 33**: Work with local and federal governments and utility cooperatives to promote home-based enterprises.

• **Strategy 34**: Work with economic development organizations such as the, Northern Rio Grande National Heritage Area, Inc., NM Tourism Dept, Dept of Cultural Affairs, and Regional Development Corporation-Empowering Business Spirit (EBS) to inventory Rio Arriba County’s outdoor recreational, cultural and historical assets and events and develop information and programs to promote and enhance these markets.

• **Strategy 35**: Look at the possibility of developing a County-wide system of bike, walking, and equestrian trails, preferably with access points linked to public transportation.

• **Strategy 36**: Cooperate with the City of Española to strengthen and improve existing museums such as the City’s Convento Mision Plaza and the County’s Oñate Monument and Visitor’s Center.

• **Strategy 37**: Create partnerships with local Tribes and tribal entities (such as the Tsay Corporation, Santa Clara Development Corporation and the Jicarilla Apache Nation) to support and utilize new and existing convention centers, hotels, recreational activities, cultural sites and dining establishments.

• **Strategy 38**: Work with the BLM and the Forest Service to develop brochures and promote outdoor recreational activities, and develop best management practices to guide recreation management on public lands. Encourage responsible use of public lands.

**Goal 7**: Create and market an outdoors-oriented, historical and culturally-based tourism program.

• **Strategy 39**: Work with economic development organizations to inventory Rio Arriba County’s outdoor recreational, cultural and historical assets and events and develop information and programs to promote and enhance these markets.

• **Strategy 40**: Look at the possibility of developing a County-wide system of bike, walking, and equestrian trails, preferably with access points linked to public transportation.

• **Strategy 41**: Cooperate with the City of Española to strengthen and improve existing museums such as the City’s Convento Mision Plaza and the County’s Oñate Monument and Visitor’s Center.

• **Strategy 42**: Create partnerships with local Tribes and tribal entities (such as the Tsay Corporation, Santa Clara Development Corporation and the Jicarilla Apache Nation) to support and utilize new and existing convention centers, hotels, recreational activities, cultural sites and dining establishments.

• **Strategy 43**: Work with the BLM and the Forest Service to develop brochures and promote outdoor recreational activities, and develop best management practices to guide recreation management on public lands. Encourage responsible use of public lands.
Goal 8: Develop a job retention program to keep jobs in Rio Arriba County.

- **Strategy 95:** Work with the New Mexico Departments of Economic Development and Workforce Solutions to promote and expand training and opportunities for less skilled or experienced workers through volunteer work experience, on the job training and professional internships, and workforce development programs.

- **Strategy 40:** Work with existing youth development programs and agencies to promote youth activities that foster entrepreneurialism and business skills.

- **Strategy 41:** Encourage businesses identified in this plan to locate in Rio Arriba County in order to maintain and expand on existing employment through incentives such as administrative processes for approval and low application fees.

Goal 9: Improve and expand the telecommunications system to provide local jobs and education opportunities to support business growth.

- **Strategy 42:** Establish a county-wide investment partnership involving NM Finance Authority, LANL, school districts, Northern New Mexico College, local governments, utility providers and the private sector to bring telecommunications to all areas of the County.

- **Strategy 43:** Expand rural wireless internet services by pursuing legislative funding and encouraging local utilities to run embedded fiber optics in utility lines and install new wireless networks and ensure that any proposed telecommunications infrastructure.

Goal 10: Designate and map existing and potential node development in the County at community centers, commercial clusters, transportation intersections, and traditional communities and, where compatible, encourage new development to locate at these nodes to increase efficiency of service and transportation.

- **Strategy 44:** Map existing and potential nodes and surrounding area including:
  - Community centers
  - Traditional Communities
  - Major transportation intersections
  - Commercial clusters
  - Areas of higher residential density (such as neighborhoods)
  - Trails and Recreation Areas
  - Existing Empowerment Zones and Enterprise Communities
  - Schools, Libraries, Colleges, and Learning and Information Centers
  - Health Care Facilities
  - Existing and planned infrastructure (community water, community sewer, electric, gas, and telecommunications)

- **Strategy 45:** Identify public transportation nodes suitable for economic development opportunities in this plan and encourage development there when compatible with the surrounding community and environment.

- **Strategy 46:** Expand existing public transportation networks.
Goal 1: Encourage environmentally-friendly light industry and manufacturing uses.

- **Strategy 47:** Work with the New Mexico Partnership to Investigate opportunities to identify and attract clean industries.

- **Strategy 48:** Encourage light industry such as furniture making, metal working, and other similar uses of agricultural based products when compatible with the surrounding community and environment.

Goal 2: Encourage renewable energy resource development that is compatible with the surrounding community and does not negatively impact the environment.

- **Strategy 49:** Investigate partnerships with local utility companies to attract renewable energy production and identify and develop locations for targeted renewable industries.

- **Strategy 50:** Expand the economic development potential of the Energy Resource Development District (ERDD) identifying, designating and mapping areas for renewable energy production such as solar and wind, and develop an ordinance with administrative processes to encourage development in these newly designated areas.

Goal 3: Support local agricultural production and promote the development of local and external markets to consume local products and sustain a local agriculture economy.

- **Strategy 51:** Promote the formation of Community Supported Agriculture organizations (CSA) that produce local food for residents and create Farm to Table and Farm to School programs through partnerships with school districts, hospitals and Farmers Markets.

- **Strategy 52:** Support the development of value added processes for local agricultural products, including the building of necessary infrastructure such as storage and processing facilities and also by encouraging the development of local markets for value added products.

Goal 4: Market and utilize existing businesses in the County where possible.

- **Strategy 53:** Provide links to local chamber of commerce and other business websites on County website.

- **Strategy 54:** Develop a Rio Arriba County business directory based on type of business.

- **Strategy 55:** Encourage new businesses use locals for employment.

Goal 5: Encourage film production in the County that utilizes the local workforce.
• **Strategy 56:** Create a directory of local businesses to assist the film industry and encourage the film industry to use local businesses and individuals as much as possible.

• **Strategy 57:** Create incentives in the film ordinance to encourage films to utilize the local workforce such as expedited review processes.

**Goal 16: Leverage Soveriegn Hubzone designated areas**

• **Strategy 58:** Partner with PTAP services to help entrepreneur’s secure Hubzone status along with proper federal small business certifications to promote government contracting opportunities.

• **Strategy 55:** Use Hubzone status to recruit businesses with significant federal contracting potential.

**Goal 17: Facilitate and support regional incubation and accelerations services**

• **Strategy 59:** Support investment in strategic partners that provide effective entrepreneurial support services

• **Strategy 60:** Develop strategic plan towards the future establishment of an incubator and accelerator facility in support of entrepreneurial development.

**HOUSING**

Rio Arriba County has a responsibility to provide to its residents opportunities that will promote and maintain safe and affordable housing. A diversified housing stock is needed to attract new residents and to accommodate the current residents. This can be accomplished through the zoning ordinance, subdivision regulations, nuisance abatement programs and other activities that support positive residential growth.

There are eighty residential communities in the county. They are all different with different needs. Some communities, like Lindrith and Las Tablas are remote from support services such as shopping and medical aid. However, communities like Alcalde, Hernandez or Chimayo provide some local services and are located a short distance from shopping and major medical support in Espanola.
Rio Arriba County has about 14,959 occupied housing units. The home-owner occupancy rate is about 79% which is a little more than the state average of 68.9%. This number for the county is down from 81.6% as reported in the 2000 US Census. Overall, only 21% (4,075 units) of Rio Arriba County’s housing units are rented, as compared to 31.1% of New Mexico housing units overall.

At 7371 units, approximately 37.7% of the single family housing in Rio Arriba County is a manufactured or mobile home. The state average is 16.6% of the housing stock.

About 11.9%, or more than 2,239, of all housing units in Rio Arriba County are 75 years old or older. This fact causes concern because many older houses have structural deficiencies and lack modern plumbing and heating systems. Older houses also run a higher risk for lead-based paint. About 389 homes are identified as lacking complete plumbing facilities. Some of these units with plumbing deficiencies are most likely some of the older homes.

Adding to issues about the quality of housing, 17.6%, about 2,615 homes, are heated by propane, which is more costly to use than natural gas. Statewide households using propane for heating is 9.6%. About 2,742 households or 18.3% use wood for home heating.

| Rio Arriba County Housing Characteristics-2013
<table>
<thead>
<tr>
<th>Number of Housing Units</th>
<th>Rio Arriba County</th>
<th>New Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Occupied Units</td>
<td>14,959</td>
<td>763,844</td>
</tr>
<tr>
<td>Average Household Size</td>
<td>2.65</td>
<td>2.63</td>
</tr>
<tr>
<td>Housing Tenure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner-Occupied</td>
<td>79/0%</td>
<td>68.9%</td>
</tr>
<tr>
<td>Renter-Occupied</td>
<td>21.0%</td>
<td>31.1%</td>
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<tr>
<td>Housing Type</td>
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<td></td>
</tr>
<tr>
<td>Single-Family Detached</td>
<td>57.5%</td>
<td>64.7%</td>
</tr>
<tr>
<td>Single-Family Attached</td>
<td>1.5%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>37.7%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Units built in 1939 or earlier</td>
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<td>5.5%</td>
</tr>
<tr>
<td>House Heating Fuel</td>
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</tr>
<tr>
<td>Utility gas</td>
<td>55.4%</td>
<td>67.5%</td>
</tr>
<tr>
<td>Bottled, tank or LP gas</td>
<td>17.5%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Wood</td>
<td>18.3%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Selected Characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacking complete plumbing facilities</td>
<td>2.6%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Lacking complete kitchen facilities</td>
<td>2.0%</td>
<td>1.3%</td>
</tr>
<tr>
<td>No telephone service</td>
<td>4.7%</td>
<td>4.7%</td>
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<tr>
<td>Occupants per Room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0 or less</td>
<td>96.6%</td>
<td>92.5%</td>
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<td>1.01 to 1.50</td>
<td>2.4%</td>
<td>2.9%</td>
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<tr>
<td>1.51 or more</td>
<td>1.0%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Median Home Value</td>
<td>$125,800</td>
<td>$161,500</td>
</tr>
</tbody>
</table>

Source: American Community Survey 2013
AFFORDABILITY

The Rio Arriba County Espanola City Housing Plan 2014-2019 reports Rio Arriba County’s median income is significantly lower than that of neighboring counties, and the median income in Española is significantly lower than the county’s. Of the county’s nearly 15,000 households, 42.9% make less than $35,000 annually—the approximate level that the US Department of Housing and Urban Development defines as low-income for Rio Arriba County—and qualify for various types of federal housing assistance. Furthermore, 19.2% of households in the county and 23% in City of Española are living in poverty, which equates to an annual income of just under $20,000 for a family of three.

The US Census uses the term “cost burdened” to identify families who pay 35% or more of their income for housing. There are about 5003 residential properties with a mortgage in Rio Arriba County, of those, approximately 1,417 families, or 28.6%, are considered cost burdened. This percentage of cost burdened homes is similar to the number for the entire state which is 26.4%. The number of cost burdened renters is reported as 817 of 33.4%. The number for the entire state is 40.9% of renters are cost burdened. This does not mean renters in Rio Arriba County are economically better off than the average renter elsewhere in the state because the median rent in the county is about $80.00 less. There are currently 481 units of affordable rental housing, but none have been built in the last 13 years, and many are badly in need of rehabilitation.

<table>
<thead>
<tr>
<th>Rio Arriba County Affordability</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeowners</td>
<td></td>
</tr>
<tr>
<td>Median mortgage</td>
<td>$1,117</td>
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<tr>
<td>Cost burdened owners</td>
<td>1417</td>
</tr>
<tr>
<td>Renters</td>
<td></td>
</tr>
<tr>
<td>Median rent</td>
<td>$655</td>
</tr>
<tr>
<td>Cost burdened renters</td>
<td>817</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Owner Occupied Unit Values</th>
<th>% of units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $50K</td>
<td>20.8%</td>
</tr>
<tr>
<td>$50K - $99K</td>
<td>19.2%</td>
</tr>
<tr>
<td>$100K - $149K</td>
<td>16.9%</td>
</tr>
<tr>
<td>$150K - $199K</td>
<td>12.9%</td>
</tr>
<tr>
<td>$200K - $299k</td>
<td>14.7%</td>
</tr>
<tr>
<td>$300K - $499K</td>
<td>9.3%</td>
</tr>
<tr>
<td>$500K - $999K</td>
<td>3.7%</td>
</tr>
<tr>
<td>$1 million plus</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

HOUSING STOCK AND AFFORDABILITY

There are just over 14,987 housing units in the unincorporated county, with 3,904 located in Española and 6,918 within the Jicarilla Apache Reservation, the Ohkay Owingeh and Santa Clara Pueblos as reported in data from 2007 & 2009 American Community Surveys. The vast majority (95%) are single-family homes with 38% of those being manufactured housing, of which over 70% of the housing stock is more than 30 years old. The US Census also reports nearly 12% of housing units are more than 75 years old and likely in need of rehabilitation, repair, and energy efficiency improvements.

Home ownership in Rio Arriba County is just over 80%, significantly higher than the national average of 67%. Both the city and the county demonstrate very high rates of vacant housing, with the total number of vacant units climbing from 16.5% to 23.3% of the total housing stock in the last 10 years. It is assumed that the high number of vacant homes may be that it is less expensive to buy a
used manufactured home than repair or make additions to an old site built home and the old home is left vacant.

Financing homes or obtaining improvement loans have been difficult to achieve in the city and county. Only 52 bank loans for home repairs were approved in the last three years, according to the County City Housing Plan. Last year, 43% of home loans were denied in Rio Arriba County, a 39% increase in denials in just two years. Mortgage financing may be the only obstacle standing in the way of potential homeowners.

Nearly 40% of the current renter households are “cost burdened,” paying more than 30% of their gross income on rent. While overall rental vacancy rates in the Española area are high (10.6%), the vacancy rate in subsidized rental projects is very low (under 4%) which indicates a very high level of demand, and a need for new affordable rental housing development in the Española area, according to the County City Housing Plan.

Goal 1: **Adopt through ordinance and implement the existing Affordable Housing Plan.**

Goal 2: **Promote site-built, clustered, higher density and residential infill developments in areas where adequate infrastructure exists or will be provided.**

- **Strategy 1:** Educate and encourage County residents about the equity benefits of creating site-built homes.
- **Strategy 2:** Develop a plan to offer density bonuses or other incentives for clustered development or development that rehabilitates existing housing stock or is an infill development in an existing village or community.

Goal 2: **Encourage a diversity of housing opportunities and provide incentives and education for affordable home ownership.**

- **Strategy 3:** Adopt a Housing Plan that sets Goals and Strategies that presents solutions to provide better housing.
- **Strategy 4:** Strive to integrate the planning strategies of the Rio Arriba County Housing Taskforce with the County’s Comprehensive Planning process.
- **Strategy 5:** Work with the County housing Authority to conduct a County-wide housing assessment to better understand housing availability, affordability, and areas of need, such as workforce senior, low-income, multi-family, and special needs housing. The assessment should also identify means of financing new housing projects.
- **Strategy 6:** Work with other housing agencies and developers in the county to create a non-profit Community Housing Development Organization (CHDO) and/or Community Land Trusts.
- **Strategy 7:** Partner with organizations that educate potential homebuyers such as the New Mexico Mortgage Finance Authority, and Habitat for Humanity, also
work with advocacy organizations that are pushing legislation to make home buying and home rehabilitating more affordable

- **Strategy 8:** Explore possible partnership or collaboration with the Northern Regional Housing Authority to develop new opportunities for affordable housing in Rio Arriba County.

**Goal 3:** Provide incentives for the rehabilitation of existing site-built residential structures.

- **Strategy 9:** With the help of affordable housing organizations, such as the Habitat for Humanity, Homewise and the Enterprise Community Partners, identify and promote programs and incentives for home rehabilitation and property owners.

**Goal 4:** Encourage the use of sustainable development practices.

- **Strategy 10:** Research for successful best practices that promote green building practices.

- **Strategy 11:** Encourage and support local, state, and federal initiatives to create incentives that promote green building practices.

- **Strategy 12:** Encourage the use of green, environmentally friendly, and energy efficient manufactured homes.
COMMUNITY FACILITIES & INFRASTRUCTURE

Rio Arriba County is a rural county of 40,072 people, according to the 2010 US Census. There is one incorporated city, Espanola, which in the 2010 US Census had a population of 10,190 people. The remaining 30,000 people are located in small rural communities, which are generally spread along the irrigable river valleys of the county. Concentrated water and sewer systems are limited in number due to the dispersed nature of the population. In a similar manner, electrical, gas, telephone and internet services are impacted by proximity to greater population densities.

WATER

There are forty-four community-based or mutual domestic water systems in Rio Arriba County. These systems vary in size from the City of Espanola which operates a municipal water system that serves over 10,000 people, to the Plaza Blanca Water System which serves 25 people.

The remainder of the county is served by private wells. Most of the wells serve only one residence, especially where lots are larger. Shared wells are commonly found in communities like Chamita or Hernandez where development is frequently denser. Permits to install domestic wells are administered by the Office of The State Engineer.

Many of New Mexico's water systems are formed as Mutual Domestic Water Consumers Associations (MDWCAs), a unique organization authorized by the Sanitary Projects Act. There are approximately 154 MDWCAs spread throughout the State. MDWCAs were first authorized by the State Legislature in 1947 as a solution to a public health crisis, the hazardous practices of use of water from ditches, rivers, and shallow wells. A substantial revision was passed by the New Mexico Legislature in 2006.

REGIONAL WATER SYSTEMS

Since the 1940s public water systems have been developed in many of the traditional communities throughout the county. Within the past decade, several community systems have begun to regionalize in order to achieve better economies of scale and thereby improve and extend their service to new community residents. El Rito Regional Water System, Agua Sana Water Users Association, Alcalde MDWCA and Greater Chimayo MDWCA are examples of regional systems. A significant percentage of the new residential development in the southern part of the county is now located on dry / non-irrigated land. This trend is helping to protect the agricultural lands, traditions and culture of these communities. In order to provide for a sustainable level of residential and other growth in these communities, the provision of a safe drinking water supply, fire protection supply and waste water treatment by the public water systems in the county is essential.
Northern Rio Arriba County, east of the Continental Divide, is the headwaters of the Chama River, which, along with many tributary streams, provides water to Santa Fe and Albuquerque. Abiquiu Dam is located about 31 miles northwest of the City of Española. It was built and operated by the U.S. Army Corps of Engineers (USACE). The dam is an earth embankment structure 354 feet high and 1,800 feet long, containing 11.8 million cubic yards of fill. The dam forms Abiquiu Lake, one of the largest lakes in New Mexico with a full storage capacity of 1,369,000 acre-feet and 5,200 acres of water. The dam's primary purpose is flood control, in addition to irrigation and municipal water storage, and hydroelectric generation. Boating, fishing and camping activities are permitted.

El Vado Dam lies on the Rio Chama River about 18 miles west of Tierra Amarilla. The earth-filled structure forms El Vado Lake, a storage reservoir for the Middle Rio Grande Project. The dam was originally built by the Middle Rio Grande Conservancy District as a storage facility for irrigation water to be used in the Middle Rio Grande Basin. Construction began in 1933 and the dam was completed in 1935.

The dam was rehabilitated by the Bureau of Reclamation in 1954-1955. In the 1960s and 1970s, the San Juan-Chama Project built a diversion through a tunnel from the San Juan River basin. The El Vado dam is 229.5 feet high and 1,326 feet long, and holds 196,500 acre feet of water.

El Vado Lake is a State Park, providing opportunities for camping, hiking, fishing and boating activities.

Heron Lake is located about two and one half miles upstream from El Vado Lake. However, the road connection is about 22 miles long. Heron Lake is a reservoir that is part of the San Juan-Chama Project, which transfers water from the upper reaches of the San Juan River through the 12.8-mile Azotea Tunnel (and under the Continental Divide), into Willow Creek and the Rio Chama (and ultimately into the Rio Grande).

Water is impounded in Heron Lake by the 1,250-foot long, 263-foot high Heron Dam, which was completed in 1971. The 5,900-acre lake is approximately 4 miles long and 3 miles wide, and lies at an elevation of up to 7,186 feet. Heron Dam is owned and operated by the United States Bureau of Reclamation.

Heron Lake is also a State Park, featuring over 200 camping and picnic sites, and two improved boat ramps. The lake is a destination for salmon and trout fishing, as well as for small boat sailing. A 5.5-mile hiking trail crosses the Rio Chama Gorge via a pedestrian suspension bridge and then runs southwest through wooded terrain to the grounds of El Vado Lake State Park.

Navajo Dam is located in the extreme northwest corner of Rio Arriba County. It straddles the county line with San Juan County. It is an earthen dam on the San Juan River, a tributary of the Colorado River.
This dam was built as part of the Colorado River Storage Project, a massive system of dams and reservoirs across the upper Colorado River Basin, by the U.S. Bureau of Reclamation.

Navajo Lake State Park is the 2nd largest lake in the state, with multiple campgrounds, 2 marinas, and 2 boat docks. The San Juan River is a world-class fly fishing destination and features a campground, day use areas and a serene trail along the river.

WASTE WATER

One of the purposes of the Sanitary Projects Act is to improve the public health of rural communities in New Mexico by providing for the establishment and maintenance of a political subdivision that operates and maintains wastewater facilities in communities for the public good.

In Rio Arriba County there are four (4) community wastewater systems organized under the Sanitary Projects Act. They are located in Abiquiu, Chama, Cordova and Truchas. The City of Espanola and the Village of Chama operate larger municipal style systems.

Individual septic systems service the majority of county residences. The New Mexico Environment Department was created by the 40th state Legislature in 1991 under the "Department of Environment Act. It is responsible for monitoring and controlling the generation, storage, transportation, and disposal of wastes in New Mexico.

ENERGY

Natural gas in Rio Arriba County is provided by New Mexico Gas Company. At this time, New Mexico Gas Company is being acquired by Florida-based TECO Energy. The service provided by the New Mexico Gas Company is limited to a portion of the developed areas of the county. A map of the service territories supplied by the gas company shows, schematically, areas of service for the communities of Lumberton, Chama West, Chama, Lindrith, Hernandez, Alcalde, Espanola and Chimayo. Service availability in these communities is usually limited to the principle roadways. Espanola has service in most streets, however.

Expansion of gas lines into residential neighborhoods is not viewed as a priority by the gas company as exemplified by the current policy to extend lines into neighborhoods. The policy requires the cost of a new gas line to be borne by the property owners who own property adjacent to the new line.

Propane gas service is an alternative to natural gas service where pipelines do not exist. Propane is delivered by truck and stored usually in above-ground tanks. The standard tank size is 500 hundred gallons. There are several dealers who operate in the county.
Using current values, propane gas is nearly double the cost of natural gas when the amount of heat produced by each gas (BTUs) is measured. Many rural county residents heat their homes with wood to avoid using propane.

Electricity is provided to Rio Arriba County by the Jemez Mountain Electric Cooperative, Inc. (JMEC) and Northern Rio Arriba County Electric Cooperative, Inc. (NORA). JMEC serves the southerly and westerly portions of the county as well as portions of adjacent Sandoval, McKinley, San Juan and Santa Fe Counties. NORA provides service for about 3,100 people in communities such as Dulce, Lumberton, Chama, Canjilon and Ghost Ranch.

JMEC and NORA do not generate their own electricity. The electricity is sourced through Tri-State Generation and Transmission Association, which provides electric power to 44 distribution cooperatives in Colorado, Nebraska, New Mexico and Wyoming, and serves over one million consumers. The company is based in Denver Colorado.

Tri-State makes available renewable performance payments to its members to support a variety of local/community-based renewable energy projects, including solar, wind, biomass, micro hydro, geothermal and recovered heat energy.

There are two hydroelectric power-generating facilities in Rio Arriba County. The electricity is generated for Los Alamos County. The facility at El Vado dam generates 8 megawatts and the at Abiquiu dam 18 megawatts are generated.

One of the keys to the overall economic health of a community is self-sustainability. This was proven in our region during the depression of 1929 and more recently the economic troubles felt globally as the housing market collapsed. Although the effects of the recent event had more impact, it was still fairly mitigated by the self-dependence which characterizes our region.

As Rio Arriba County becomes more connected to the global economy, it is apparent that the need for additional outlets of self-reliance should be identified and fostered. As with any other modern society, perhaps the most important of these is energy independence. In this arena solar technology holds promise, perhaps not as the total answer but certainly an important component. Due to the small land base and fragile environment, utilizing already disturbed areas to deploy this technology would be the most expeditious. Large scale arrays require a fairly large land mass and investment capital.

Roof mounted technology is quick, efficient and fairly cost effective. Combining this technology with micro-grid technology would vastly increase our self-reliance and decrease energy loss due to large transmission distances.

Additionally, the economic advantage of this idea is twofold. To the individual household it would help boost the local economy by keeping more money in the household coffers which would then translate into more local purchases. Teaming up with the local schools, colleges and our electricity utility cooperatives to help train a local workforce which is
already nominally versed in this technology to increase their proficiency would provide a ready local work force for full deployment creating more jobs across different disciplines.

Solar technology itself is not the solution or remedy for economic self-reliance; it is however a key component worthy of strong consideration. If looked at from an overall perspective, combined, all of these components can have a very strong and long lasting impact.

**TELECOMMUNICATIONS**

Windstream Communications provides primary land based telephone, cellular telephone, television and internet services to homes and businesses in Rio Arriba County. Other companies also offer cellular phone service where there is the proper range to a communication tower.

Rio Arriba County is currently working with several entities to provide high speed internet services throughout Rio Arriba County. The project, designated as REDI Net, entails initiating a middle-mile fiber optic broadband network in rural Northern New Mexico.

Providing high speed broadband will enhance the delivery of rural healthcare services, make public and higher education more accessible, and improve local government services, including public safety.

**SOLID WASTE**

The North Central Solid Waste Authority provides for solid waste removal for residential and commercial accounts in the county. This waste authority was created by Rio Arriba County in 2004 and now is run as a separate organization. It has automated curbside collection of residential waste. Commercial or large residential waste can be taken to any of the six collection stations situated in the communities of Tierra Amarilla, Canjilon, Ojo Caliente, Santa California, Cordova, and more recently Alcalde. Curbside pickup of recyclable materials is not available currently. However, bins are provided.
for the material at the collection centers. For a reduced annual rate, customers can self-haul waste in-lieu of curbside pickup.

COMMUNITY FACILITIES

Rio Arriba County has been able to provide a number of buildings for community use and functions of the county government. Listed below are multipurpose community buildings available to the public, and also to house specific functions such as the County Fair, Senior’s activities and meals, recreation activities and medical clinics, and New Mexico State University extension programs. The Senior Program is dedicated to promoting healthy life styles for all seniors 50 years and older through health treks, fitness, and sporting events. It is designed to encourage the Seniors of Rio Arriba County both well and frail to utilize our programs and services to enrich their lives by providing a coordinated system of opportunities to promote independent living and overall well-being with the primary focus on the rural and low-income minority. The Recreation Department has been providing meals to youth throughout Rio Arriba County for 13 years. Since becoming a Summer Food Service Program sponsor the program has continuously and steadily seen increases in both opening new meal sites and overall participation. During the 2013 program year seven new meal sites were opened to provide services to youth in various communities, expanding the number of meal sites from 18 to 25. This year we are serving 27 meal sites and have high expectations on surpassing the 1,100 meals served in 2013, and expanding to 1,300 meals on a daily basis. Our recreation sites offer Nutrition Education twice a month, arts & crafts, swimming, field trips, fire prevention, and presentations in collaboration with RAC S.T.O.P (formally known as DWI) with drug and alcohol related presentation. This year we will be implementing more physical activities and physical fitness to help fight against obesity as it relates to improved health, self-esteem, academic and attendance performances, and discipline.

<table>
<thead>
<tr>
<th>COMMON USE</th>
<th>NAME</th>
<th>PHYSICAL ADDRESS</th>
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<tr>
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Rio Arriba County has two Administration Building locations where people can obtain development permits or contact the Sheriff, County Assessor, County Clerk or County Treasurer. These offices are located in Española and in Tierra Amarilla. The Rio Arriba County Courthouse and detention center are also located in Tierra Amarilla.

**PUBLIC SCHOOL DISTRICTS IN RIO ARRIBA COUNTY, NEW MEXICO**
This table lists all the public school districts in Rio Arriba County, New Mexico. Some school districts serve areas outside of Rio Arriba County.

| 1. Chama Valley Independent Schools | New Mexico 531 Tierra Amarilla NM 87575 | Grade: PK-12 | Schools: 5 Students: 403 |
| 2. Dulce Independent Schools | 113 Hawks Dr ,Dulce NM 87528 | Grade: PK-12 | Schools: 3 Students: 695 |
| 3. Espanola Public Schools | 714 Calle Don Diego Espanola NM 87532 | Grade: PK-12 | Schools: 16 Students: 4388 |
| 4. Jemez Mountain Public Schools | Hwy 96 Gallina NM 87017 Espanola NM 87530 | Grade: PK-12 | Schools: 5 Students: 316 |
| 5. Mesa Vista Consolidated Schools | State Rd 554 Bldg 1253a El Rito NM 87530 | Grade: PK-12 | Schools: 4 Students: 403 |
| 6. New Mexico North Education Line Office | PO Box 4230 Espanola NM 87533 | Grade: N-N | Schools: 0 Students: -2 |
| 7. Ohkay Owingeh Community School | PO Box 1077 Ohkay Owingeh Pueblo NM 87566 | Grade: KG-08 | Schools: 1 Students: 74 |
| 8. Santa Clara Day School | 2 Kee St Espanola NM 87532 | Grade: KG-06 | Schools: 1 Students: 134 |
| 9. McCurdy Charter School | 342 S. McCurdy Road Espanola New Mexico 87532 | Grade K-12 | Schools: 1 Students 430 |

Below lists the schools in the Espanola Public School District:

1. Espanola Valley High School-Fairview, NM High School 09-12
2. Carlos F. Vigil Middle School-Espanola, NM Middle School 07-08
3. San Juan Elementary School-San Juan, NM Elementary School PK-06
4. Eutimio Salazar Elementary School-Fairview, NM Elementary School PK-06
5. James Rodriguez Elementary School-Espanola, NM Elementary School 01-06
6. Tony Quintana Elementary School-Espanola, NM Elementary School 01-06
7. Carinos de los Niños School-Espanola, NM Elementary School PK-06
8. Hernandez Elementary School-Hernandez, NM Elementary School PK-06
9. Dulce Elementary School-Dulce, NM Elementary School PK-05
10. Dulce High School-Dulce, NM High School 09-12

TRADITIONAL ACEQUIA INFRASTRUCTURE
Rio Arriba County contains acequia systems that were developed by the early settlers. These water distribution systems are governmental units that regulate the distribution of irrigation water to local agriculture. These systems are the backbone of settlement and development within the county. There are over two hundred acequia systems spread along the river valleys of Rio Arriba County.

![Diversion Dam](image)

**PUBLIC SAFETY**

The Rio Arriba County Sheriff Department serves the unincorporated areas of Rio Arriba County and operates out of the County’s offices in Española and Tierra Amarilla. The Department also operates a jail in Tierra Amarilla which is designed to hold 140 inmates. The City of Espanola has its own police department.

Rio Arriba County manages the eighteen (18) fire departments in the county, fifteen (15) of which also provide rescue and emergency medical service (EMS) for the area. There are two private companies which provide EMS services. Presbyterian Hospital located in Española serves the southern part of the county. While Las Clinicas del Norte serves the northern part of the County.

The following 18 fire districts Fire Districts are managed by the office of the Rio Arriba County Fire Marshall:
The mission of the Office of Emergency Management is to prepare for and reduce the effects of natural or man-made disasters through planning, mitigation, response and recovery.

The Office of Emergency Management is funded through a matching grant from FEMA. The Office uses risk assessments and hazard analysis to identify problems which might affect the county. Once this information is obtained, measures are initiated to reduce the effect of those hazards. By reducing the impact, the recovery from the disaster is enhanced allowing for a quicker return to normal. This process includes training and planning.

The OEM is also working with the State Office of Emergency Management to deal with Homeland Security funding to enhance response capabilities. The Public Works Department promotes safety, maintenance and improvements to County Roads; provides the control and care of animals and the authority of animal control officers; is responsible for maintenance and repair of County fleet; and exercises its ability to promote health and sustainability for Senior Citizens through Senior Olympics, as well as, recreational activities and summer food programs for school children.

HEALTH CARE

The Rio Arriba County Health Care Assistance Program (“HCAP”) is a program administered by the Board of County Commissioners and the HCAP Coordinator. The HCAP was established in accordance with the Indigent Hospital and County Health Care Act, NMSA 1978§ Chapter 27, Article 5 (“Indigent Act”) The HCAP program provides assistance to medically indigent (“Patients”) who are residents of Rio Arriba County.

Rio Arriba County has constructed a medical facility in Espanola called the Health Commons. It is an innovative, state of the art, one-stop shop designed to meet all basic health care needs in one easy trip. The building is divided into three wings: a medical wing; a behavioral health wing; and a maternal child health wing. Rio Arriba Health and Human Services Department shares the space with El Centro Family Health (a primary care clinic), and the Espanola Public Health Office (serving mothers and infants).

El Centro Family Health provides quality health care services at affordable prices to rural Northern New Mexico with 13 medical clinics, 9 school based clinics, and 3 dental clinics. El Centro clinics serve more than 17,700 patients each year. El Centro Family Health is a private not-for-profit health provider. It is funded through federal and state grants, foundation grants, donations and patient billing.
Rio Arriba County provides services to senior citizens of the County. In 1982 Rio Arriba County took over Senior Program operations from the non-profit organization called Los Cuidadanos Mayores del Condado de Rio Arriba. The County, together with Area Agency on Aging provides Congregate Meals and an array of other essential Senior Services. Nine County Community Centers are used for these services.

The Rio Arriba Department of Health and Human Services was established circa 1998 as the first county-run HHS Department in New Mexico. RAHHS provides intensive case management for a variety of difficult to serve populations including individuals suffering from Substance Use Disorders, homeless and unstably housed persons, jail inmates and released inmates, frequent emergency room utilizers, high risk pregnancies and TANF-eligible individuals. RAHHS is a Medicaid Provider for mental health services, Personal Care Services for the Elderly and Disabled, and Adult Day Care. RAHHS oversees the only adult day care located north of Santa Fe, and provides regular health fairs, immunization fairs, enrollment events, and medication management events to the public. The Rio Arriba Community Health Council, coordinated by the RAHHS director, is the County’s designated Health and Human Services Council. Most providers serving Rio Arriba County are active council participants.

The Rio Arriba County DWI Program administers programs and services that are designed to reduce the number of alcohol related fatalities throughout Rio Arriba County. The program is funded from the State of New Mexico Department of Finance and Administration local distribution funds as well as New Mexico Traffic Safety Bureau community DWI funds. With Rio Arriba County Commission recommendations as well as the County DWI Council that serves as a planning body, funding is utilized strategically to provide an array of educational programs and intervening services to the residents of the Rio Arriba County.

The Presbyterian Española Hospital is a private acute care hospital located in Española. It is a not-for-profit hospital with 80 licensed beds. The hospital provides a wide range of services for healthcare needs, including emergency medicine and sleep disorders, as well as primary care and specialty services.

**HOUSING AUTHORITY**

The Rio Arriba County Housing Authority provides public housing to low-income families within Rio Arriba County. The Housing Authority provides Public Housing in Tierra Amarilla and Ojo Caliente and maintains the Housing Choice Voucher Program.

The Public Housing Program was established to provide a secure, safe, clean and affordable housing for all eligible low-income families without discrimination. The Rio Arriba County Public Housing provides 29 housing units in Tierra Amarilla NM and 25 housing units in Ojo Caliente, NM. Public housing is available in 1,2,3,4 and 5 bedroom homes at both locations. Handicap units are available.
The Rio Arriba County Housing Choice Voucher Program (Section 8 Program) assists 25 families with rental assistance within Rio Arriba County. The Section 8 Voucher Program provides rental assistance and allows low income families to find their own places to rent within Rio Arriba County. The HCV participant has the right to leave the RACHA jurisdiction and use their voucher anywhere in the U.S. or its territories where there is a housing authority with a Section 8 program after one year of residency within Rio Arriba County.

Goal 1: Incrementally improve electrical distribution and availability by promoting the use of renewable energy and reduction of greenhouse gases.

- **Strategy 1:** Develop partnerships between local electric utilities and property owners, such as the County, land grants and private individuals, who can provide a land base for siting renewable energy infrastructure.
- **Strategy 2:** Encourage and offer incentives for new developments to provide distributed co-generation through the use of solar panels and wind and water turbines.
- **Strategy 3:** Encourage new economies of alternative energy utilizing biomass.
- **Strategy 4:** Offer incentives for manufacturers that produce solar panels, wind and water turbines and other renewable energy infrastructure to locate in Rio Arriba County.
- **Strategy 5:** Promote the use of biomass through partnerships with the federal agencies and the land grants for thinning and timber harvesting in high-fuel areas.
- **Strategy 6:** Work with local utilities and appropriate state agencies to assess the capacity of existing transmission lines in Rio Arriba County to carry renewable power and develop greater capacity for renewable energy transmission where the infrastructure is insufficient.

Goal 2: Research and promote water and wastewater technology standards that minimize the water footprint of development.

- **Strategy 7:** Encourage the use of water harvesting and gray-water treatment systems in new residential development.
- **Strategy 8:** Promote water conserving fixtures and drought tolerant, native landscaping in new construction.
- **Strategy 9:** Promote wastewater systems such as lagoons to return water to the ground and that provide for surface improvements such as vegetation and habitat.

Goal 3: Develop multiple uses of existing community facilities, and develop community centers, parks and recreational facilities to meet community needs.
• **Strategy 10:** Establish partnerships and joint use agreements with school districts, Northern New Mexico College and local municipalities, for the use of school facilities and promote construction of new facilities to ensure public access and availability.

• **Strategy 11:** Explore the extension of the County’s liability insurance for communities to use in areas where there are no County buildings available for community activities.

• **Strategy 12:** Adopt a policy to ensure that all Rio Arriba County facilities are utilized to their maximum and available to the public and community groups throughout the year within the limits of State laws and regulations.

• **Strategy 13:** Investigate the feasibility of a regional, multi-use recreational facility for all age groups and pursue state and federal funding.

• **Strategy 14:** Require large subdivisions, planned communities and planned unit developments to provide recreational facilities, such as community centers, parks, trails and greenbelts to ensure adequate recreational amenities for residents.

• **Strategy 15:** Seek funding to perform energy audits on all County buildings and assess costs and savings associated with retrofitting buildings to make them more energy efficient.

• **Strategy 16:** Seek funding to map and inventory dilapidated buildings in the County, and find additional funding and resources to support appropriate retrofitting or demolition.

**Goal 4: Promote usage of local natural resources for energy production, road and construction materials when compatible with neighborhoods and the environment.**

• **Strategy 17:** Promote partnerships with community organizations and the USFS Vallecitos Sustained Yield Unit to provide timber for local construction projects.

• **Strategy 18:** Work with the County Fire Marshall to pursue State and Federal funding for forest thinning for Wildland/Urban Interface areas, as Critical Management Zones to designate specific standards for development in these areas to create buffers for fire safety, erosion protection, and extended runoff retention.

• **Strategy 19:** County should partner with PNM to provide natural gas to rural communities.

• **Strategy 20:** Inventory the current locations for road building material and develop policy as to what locations are suitable for sand and gravel operations taking into consideration distances from sources to areas of need.
Goal 5: Expand the animal control capabilities to ensure adequate protection of people and animals.

- Strategy 21: Encourage the use of pet controls in covenants for new residential development.
- Strategy 23: Consolidate all County code enforcement activities, including animal abuse, into a single County division, and provide adequate staffing for enforcement.

Goal 6: Improve solid waste services and facilities and promote recycling to beautify the County.

- Strategy 24: Support the North Central Solid Waste Authority’s efforts to construct and operate a recycling center, collect residential and commercial recycling, develop a yard waste program, and provide large-item pick up and problem waste disposal services.
- Strategy 25: Work with north central solid waste to improve service and provide pick up or transfer stations in rural areas to reduce the amount of illegal dumping.
- Strategy 26: Investigate the feasibility of partnering with existing recycling services in the region to include Rio Arriba County as part of the area of service to provide home recycling pick-up services and increase the economies of scale of regional recycling infrastructure.

Goal 7: Provide adequate and accessible total health care facilities and promote the County’s Health Commons and primary care facilities.

- Strategy 27: Through capital improvements plans and grant writing, aggressively seek state and federal funding to support the completion and expansion of the Rio Arriba Health Commons and primary care facilities.
- Strategy 28: Provide incentives and land use zoning to expand and encourage constructing of medical and treatment facilities in and near the Health Commons.
- Strategy 29: Develop and adopt policies favoring business practices, land use and service delivery specifically designed to improve the health of Rio Arriba residents.
- Strategy 30: The County will use its influence as a funder to play a leadership role by assisting providers to coordinate services, develop new services, and meet gaps in the service array. It will negotiate with the state and its designated agencies to insure that service coordination remains local.
TRANSPORTATION

The principle transportation mode within Rio Arriba County is by private automobile and truck. US Highway 84/285 and US Highway 68 which connect central New Mexico with Colorado are the main north and south routes. US Highway 550 crosses the southwest corner of the County. None of these highways are part of the Federal Highway Interstate system. State highways connect with County maintained roads and private roads. High mobility vehicle travel is generally limited to the Chama and Rio Grande river valleys. The North Central Regional Transit District, based in Española, operates a public bus system. The District started free service in 2007.

There are two public general use airports. None of these offer commercial air service. Much of the oil and gas products produced in Rio Arriba County are transported by large underground pressurized pipelines. Two of the larger systems are the Mid America Pipeline and lines owned by Enterprise Products Partners. Tanker trucks are also used to collect and distribute oil to refineries out of the County.

There is no commercial railroad system to transport people and commerce. The Cumbres and Toltec railroad which operates between Chama, NM and Antonito, CO is a now used for recreational purposes. The nearest railroad is the BN&SF Railroad which currently has a depot in Lamy south east of Santa Fe.

STREETS AND HIGHWAYS

The state and federal highway systems are the backbone of the vehicular transportation system in Rio Arriba County. Improving the carrying capacity and safety of these highways will help improve living conditions in the county. Improved highways will allow more people and goods to be transported more safely into, through and out of the county. Improvements can mean better commuting conditions to jobs located outside of the county. This is especially important for residents of southern Rio Arriba County, where the majority of employed persons experience a one-way commute time of 30 minutes or more to jobs located in Los Alamos, Santa Fe or Bernalillo counties according to the US Census.

There is currently one major highway corridor improvement study being conducted. The New Mexico Department of Transportation (NMDOT), and the Federal Highway Administration (FHWA) propose to improve NM 68 from Española to Taos. The proposed study an analysis of existing conditions of NM 68 between Velarde and the Horseshoe Curve. The scope of the study is to determine any improvements that can be made along NM 68 for the near, medium and long term. The study is expected to be completed in December, 2014.

The Statewide Transportation Improvement Plan (2014-2017) NMDOT has budgeted a little over $28.4 million dollars to improve and repair portions of state highways in Rio Arriba County. These eight projects are on NM 68/74 NM 30, NM 68, NM 552 and NM 96. Also included in the budget are bicycle and pedestrian improvements in Española.
Most of the road work is reconstruction. None of the work will increase the carrying capacity of the highways.

The County Public Works Department is responsible for maintenance and repair of all county roads. The county is not responsible for maintenance or repair to private drives or road easements. Many of these roads are dirt and poorly maintained. These roads are usually the responsibility of the adjacent property owner, the persons who use the road or a home-owners association. Some subdivisions that were created before the current regulations, as an example Santa California Subdivision, do not have active maintenance programs. In these cases the roads are narrow, undeveloped, eroded and in places unsafe for travel.

Rio Arriba County roads network also includes three scenic byways, which have been established by the New Mexico Department of Transportation. They are the High Road to Taos SR 76, the Narrow Gauge Scenic Roadway, SR 17 and El Camino de Tierra Adentro which is the historic Spanish trade route from central Mexico ending at Ohkay Owingeh Pueblo. Identifying markers can be seen along McCurdy Road, SR 68 and SR 84/285.

PUBLIC TRANSIT

Rio Arriba County owned and operated Los Valles Transit, which provided shuttle service to Espanola, Santa Fe and the I-25 corridor. In 2004 the North Central Regional Transit District was formed and Los Valles was merged with the new RTD service system. NCRTD has expanded regional service and connects to adjacent cities in Los Alamos and Santa Fe Counties Monday through Friday. During the fiscal year 2013, RTD ridership achieved a peak level of 193,027 riders.

In November 2010, New Mexico Department of Transportation published the New Mexico Public Transportation Plan. This statewide plan shows, in part, how state and federal funds are being used to support public transportation for low income, elderly and handicapped persons. Between NCRTD, Las Cumbres and Española Senior Center 54 percent of that part of the county population was served in 2010 and the report projects 87 percent coverage by the year 2025.
AIRPORT SERVICE

The closest international airport serving residents of Rio Arriba County is the Albuquerque Sunport which is about 90 miles south from Española. There are two small airports within Rio Arriba County that are open to the general public. The Ohkay Owingeh airport, located northeast of Española is owned by the Ohkay Owingeh Pueblo. The runway has been recently improved to FAA standards for a general aviation airport without a tower. As of April 2012 there was an average of 63 aircraft operations per week. In Lindrith the Bureau of Land Management owns the Lindrith Airpark. The facility is leased to Wilderness Area Rescue Squad, Inc. The runway is dirt and there is no tower. It was reported in September 2012 that an average of 150 aircraft operations occur per year.

About 25 miles to the south is the Santa Fe Municipal Airport. About 65,456 aircraft operations were reported in 2012. About 7 percent of those activities were taxi service. American Eagle airlines now offers flights to Los Angeles, Dallas/Fort Worth, Houston and Denver. United Express also has flights to Denver.

HIKING AND BIKING

The Continental Divide National Scenic Trail, which begins in Mexico and ends in Canada, offers views of spectacular backcountry experiences along the nation's continental divide. A portion of the trail is found in Rio Arriba County where it intersects with US 64, about 10 miles west of Chama. Not all parts of the trail are well marked. This portion of the trail is managed by the Bureau of Land Management.

Wide expanses of New Mexico offer some of the best bicycling opportunities in the world, whether your preference is street or trail. There are thousands of accessible locations to ride in the Land of Enchantment. Organized biking groups are a common site on the roadways of Rio Arriba County in the warmer seasons. There are no organized bicycle lanes in the County. Improved opportunities for pedestrians and cyclists would help reduce Rio Arriba’s diabetes-related death rate, which was 60.7 per 100,000 compared to New Mexico’s rate of 32.5 per 100,000 between 2008 and 2010 according to the 2012 RACHC Community Health Profile.

Goal 1: Improve and maintain the County road level-of-service and condition.

- **Strategy 1:** Prepare a Road Management and Maintenance Program that evaluates the overall roadway system and develops maintenance program and standards that reflect existing and projected traffic volumes. Develop standards that address the adoption or creation of new County roads.

- **Strategy 2:** Consider using alternative road surfacing materials on dirt roads such as Poly-pavement or X-zyme products to improve dust and erosion control and reduce maintenance.
- **Strategy 3:** Prevent encroachment on existing road easements and ensure that all County roads are navigable by County and emergency services.

- **Strategy 4:** Seek and support cooperation between the County, the Bureau of Land Management, private land owners and community members to improve the quality and safety of roads in the county both public and private.

**Goal 2:** Encourage multi-modal transportation uses, such as bike lanes.

- **Strategy 5:** In partnership with the local municipalities and the NMDOT, prepare an assessment of County and State routes that could qualify a Rio Arriba County Scenic Roadways system designation that incorporates a bike path system, possible equestrian trails, bicycle parking and amenities and includes significant cultural, historical, environmental, and recreational assets of the county.

- **Strategy 6:** Identify roads that are feasible for bike lanes and include dedicated bike and pedestrian facilities in new roadway projects when easement width is available.

- **Strategy 7:** Assist in educational programs to users and the general public related to safe operations of motorized and non-motorized transportation modes.

- **Strategy 8:** In partnership with the Northern Pueblos Regional Planning Organization, prepare a County Multi-modal Transportation Master Plan that evaluates the overall road, bike and pedestrian system, assesses intersection and safety functions, projects future traffic volumes and develops a functional street classification system and level of service standards that reflect existing and projected traffic volumes.

- **Strategy 9:** Prepare a Rio Arriba Trail, Bikeway, Equestrian Trail, and Open Space Master Plan in collaboration with land grant associations, local pueblos, the BLM Rio Arriba Resource Area and the Carson National Forest Ten Year Management Plan, to ensure access to the outdoors for local families. Try to link access to these open spaces with existing public transportation to increase accessibility.

**Goal 3:** Promote expansion, access and availability of the public transit system

- **Strategy 10:** Support and expand the North Central Regional Transit District, including park and ride facilities.

- **Strategy 11:** Encourage the expansion of routes to and from regional farmers markets to include Saturday Sunday service.

- **Strategy 12:** Assist in identifying much needed bus stops and ensure each has a shelter with proper seating and lighting to increase ridership.

- **Strategy 13:** Assist with and identify additional routes and stops that are convenient, economical, and abide to public transportation requirements.
Goal 4: Improve and maintain public access to traditional and communal lands.

- **Strategy 14**: Adopt a County Land Use ordinance to create public right of way from existing prescriptive easements to assure historic access to public lands.

- **Strategy 15**: Maintain existing County roads that access public lands and do not allow for them to be abandoned by the County.

Goal 5: Identify roads with level of service (LOS) and road width restrictions.

- **Strategy 16**: In partnership with the local communities prepare an assessment of county roads to determine level of service and road width standards.

Goal 6: Work with local communities to prioritize road maintenance.

- **Strategy 17**: Adopt a County Road Management and Maintenance guide.

Goal 7: Work with NMDOT to identify areas where Level of Service (LOS) and safety can be improved.

- **Strategy 18**: In partnership with the NMDOT, prepare an assessment of state routes to improve level of service and road safety.
HAZARD MITIGATION

The Rio Arriba County Hazard Mitigation Plan is being developed to update and revise hazard mitigation activities for Rio Arriba County and its participating jurisdictions. The Rio Arriba County Hazard Mitigation Planning Team will evaluate proposed mitigation measures, and outline a strategy for implementation of mitigation projects. This plan covers the following local governments: the City of Española, the Jicarilla Apache Nation, Northern New Mexico College, and the Village of Chama. Formal adoption and implementation of a hazard mitigation plan presents many benefits to Rio Arriba County and its participating jurisdictions. By identifying problems and possible solutions in advance of a disaster, Rio Arriba County and its participating jurisdictions will be in a better position to obtain pre- and post-disaster funding.

INTRODUCTION TO HAZARD MITIGATION

The Emergency Management Cycle & Mitigation
Understanding this cycle is the first step to effective planning and operation in relation to all disaster related activities. The emergency management cycle is an open-ended and ongoing process. The four phases in the process are mitigation, preparedness, response, and recovery. Each phase of the cycle can last years or moments in length and different paths can exist simultaneously.

Mitigation planning is the process of determining how to reduce or eliminate the loss of life and property damage resulting from natural and human-caused hazards. It is encompasses any sustained action to reduce or eliminate long-term risk to life and property from a hazard event. Mitigation encourages long-term reduction of hazard vulnerability. As is the goal of emergency management, the goal of mitigation is to save lives and reduce property damage.

The Disaster Mitigation Act of 2000 (DMA 2000)
In the past, federal legislation has provided funding for disaster relief, recovery, and some hazard mitigation planning. The Disaster Mitigation Act of 2000 became law on October 30, 2000, and amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Stafford Act) (Public Law 93-288, as amended). Regulations for this activity can be found in Title 44 of the Code of Federal Regulations Part 206, Subpart M. This legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. This act establishes a pre-disaster hazard mitigation program and new requirements for the national, post-disaster, Hazard Mitigation Grant Program.

Section 322 of the act specifically addresses mitigation planning at the state and local levels. It identifies new requirements that allow HMGP funds to be used for mitigation planning activities, and increases the amount of HMGP funds available to states that have developed a comprehensive, enhanced mitigation plan prior to a disaster. States and communities must have an approved mitigation plan in place prior to receiving post-disaster HMGP funds. Local and tribal mitigation plans must demonstrate that their
The proposed mitigation measures are based on a sound planning process that accounts for the risk to and the capabilities of the individual communities.

DMA 2000 is intended to facilitate cooperation between state and local authorities, prompting them to work together. It encourages and rewards local and state pre-disaster planning and promotes sustainability as a strategy for disaster resistance. This enhanced planning network will better enable local and state governments to articulate accurate needs for mitigation, resulting in faster allocation of funding and more effective risk reduction projects. To implement the new DMA 2000 requirements, FEMA prepared an interim final rule, published in the Federal Register on February 26, 2002, at 44 CFR Parts 201 and 206, which establishes planning and funding criteria for states and local communities.

On October 31, 2007, FEMA subsequently published an Interim Rule in the Federal Register, which ensures the Flood Mitigation Assistance (FMA) program planning requirements are consistent with the mitigation planning regulations as cited in the Code of Federal Regulations (CFR) at Title 44, Chapter 1, Part 201 (44 CFR Part 201).

Hazard mitigation refers to real and potential threats to communities that occur naturally or are caused by humans. The terrorist attacks of September 11, 2001 and the subsequent creation of the US Department of Homeland Security focused attention on these threats, resulting in funding for communities to plan for and implement actions for hazard mitigation. In May 2007, the Rio Arriba Board of County Commissioners adopted the Hazard Mitigation Plan for Rio Arriba County, New Mexico. The Plan is the result of several years of work by Rio Arriba County, incorporated and unincorporated communities and Indian Tribes and Pueblos within the County, County residents, and agencies involved with emergency response, such as the American Red Cross, the Española Hospital, the New Mexico State Police and the New Mexico Department of Public Safety.

The Plan assesses and proposes mitigation actions for wildfire, drought, and flooding; human-caused hazards, including terrorism and radiological hazardous materials transportation and operations at Los Alamos National Security (LANS); and other hazards including severe weather and earthquakes. The highest-priority mitigation action in the Plan is the implementation of a comprehensive communication network to reduce potential loss of life and damage to community assets from all hazards.

The Hazard Mitigation Plan also recommends several mitigation actions aimed at prevention of all hazards, including public education, intra-governmental partnerships and land use and development controls. Land use and development control mitigation actions are especially relevant to this Comprehensive Plan, as the Comprehensive Plan can serve as a basis for implementing them. These mitigation actions include:

- Developing or revising comprehensive plans and zoning ordinances to limit development in high hazard areas and improve the ability to identify vulnerable structures. This involves using vulnerability analysis information in planning.
processes, and identifying hazard areas and vulnerable structures in Geographic Information Systems.

- Adopting building codes that protect against hazards for new construction and renovation.
- Adequately and consistently enforcing ordinances and codes.
- Assisting to provide information about the build-out potential of high hazard areas.

The Strategic Goals of the 2014 Rio Arriba County HMP are as follows:

1) Reduce loss of life and decrease property losses to Rio Arriba County and its participating jurisdictions due to natural disasters; and

2) Provide the framework and coordination to encourage government, and public and private organizations, at all levels, to undertake mitigation in order to minimize potential disasters and to employ mitigation strategies in the recovery following disasters.

Specific planning objectives are as follows:

3) Identify, describe, and characterize the hazards to which Rio Arriba County and its participating jurisdictions are susceptible; and

4) Assess the risk of each hazard, including probability, frequency, exposure, vulnerability; and

5) Examine feasible mitigation opportunities appropriate for the identified hazards, prioritize those opportunities; and

6) Implement mitigation actions to reduce loss of lives and property; and

7) Identify mitigation opportunities for long-range planning consideration.

It is the intent of the HMP that through its adoption, the City of Española, the Jicarilla Apache Nation, Northern New Mexico College, and the Village of Chama will comply with the sections set forth.

Upon plan adoption, the Jicarilla Apache Nation will continue to comply with all applicable Federal statutes and regulations during the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c), and will amend its plan whenever necessary to reflect changes in tribal or federal laws and statutes as required in 44 CFR 13.11(d).

**DROUGHT**

New Mexico experiences drought about every ten (10) years. Droughts in Rio Arriba County reduce water supplies used for human consumption, livestock, agriculture, forests, firefighting, recreation and wildlife, and also affect water quality. The Rio Arriba
County *Hazard Mitigation Plan* identifies water conservation as the primary tool to protect the County from the impacts of drought. A countywide drought management plan, xeriscaping and land use regulations that direct runoff to pervious areas, are mitigation actions included in the plan.

**WILDFIRE**

Rio Arriba County and its participating jurisdictions have recorded 1820 wildfires since 1986, which have burned 21,818.51 acres at an average of 779.23 acres per year and 17.05 acres per fire. Rio Arriba County and its participating jurisdictions can expect 779.23 acres to be burned per year. More specific predictions on potential impacts are dependent on highly variable and continually changing conditions not appropriate for this level of planning.

<table>
<thead>
<tr>
<th>Years (1986 - 2013)</th>
<th>Fires</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>1,820</td>
<td>21,818.51</td>
</tr>
<tr>
<td>Per Year</td>
<td>65.00</td>
<td>779.23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vulnerability of Facilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A wildfire burning near a jurisdiction may cover it in soot, cause secondary fires from traveling coals, or directly engulf facilities, burning them to the ground. Creating defensible spaces or buffer zones, maintaining a fuel free environment, and structural modifications to prevent the growth of a wildfire, can protect facilities.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vulnerability of Population</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rio Arriba County and its participating jurisdictions have a population of 40,318. A jurisdiction’s population greatest vulnerability is an inability to properly evacuate. They can be caught off guard due to improper warning systems and become trapped in a growing wildfire.</td>
<td></td>
</tr>
<tr>
<td>Historically, there are no recorded deaths or injuries in Rio Arriba County and its participating jurisdictions from wildfire.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vulnerability of Systems</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In the event a wildfire begins to burn and grow, evacuation routes may become blocked by the fire or by other people attempting to evacuate. The impingement of the local transportation system make appropriate warning and information paramount in mitigating Rio Arriba County and its participating jurisdictions’ systems’ vulnerability to wildfires.</td>
<td>17.05</td>
</tr>
</tbody>
</table>
Increased residential growth increases a community’s risk to wildfires by way of its facilities, and population. None of the participating jurisdictions have seen significant growth in identified hazard areas. Thus their risk to wildfires has not increased.

Of all hazards, wildfires pose the greatest threat in Rio Arriba County. From 1997 to 2003, 354 fires in Rio Arriba required emergency response. The Cerro Grande Fire of 2000 burned 45,000 acres in Los Alamos and Rio Arriba counties, causing property loss, and damage to vegetation and wildlife. Today, Northern Rio Arriba County and the Española bosque rank among the twenty most vulnerable wildland/urban interfaces in New Mexico. Wildfires in Rio Arriba County pose such a significant threat because tree densities in the wildland/urban interface are several times greater than those in healthy forests. In recent years, drought and insect infestation has created drier conditions, exacerbating the underlying problem of fuel accumulation. Irrigated farmlands, which extend approximately one mile on either side of the County’s three rivers, are most vulnerable to wildfires. Shown in the box at right, the Hazard Mitigation Plan proposes a number of mitigation actions to address wildfires.

FLASH FLOODS

Flooding in Rio Arriba County takes the form of flash floods: high-velocity storm flows that fall suddenly, usually for short periods of time. Runoff from dense snow pack and heavy spring and summer thunderstorms produce large volumes of water, which rapidly drain off the steep slopes, sparse vegetation and fined-grained soils of Rio Arriba County. The impacts of flash flooding are exacerbated by wildfire, drought and development (roads etc.), which reduce vegetative cover and further expose the soil. Severe flash flooding is most likely to occur in drainages that receive runoff from watersheds with steep slopes and narrow stream valleys. Parking lots and other impervious surfaces contribute to flash floods, because they prevent infiltration and allow water to runoff more quickly. Numerous roads in Rio Arriba County cross arroyos, and are hence vulnerable to severe erosion and wash-out as a result of flash floods and subsequent mudslides. The Rio Arriba County Hazard Mitigation Plan aims to protect these roads through flood protection measures and erosion and sediment reduction. The plan also proposes to educate property owners in flood hazard areas about purchasing flood insurance.

Wildfire Mitigation Actions

- Reduce fuel loads through thinning and other measures
- Create defensible space in the wildland/urban interface
- Stop removal of native species in the Española bosque
- Develop a water tank to supply fire hydrants in Española
- Create firebreaks around communities
- Extend water lines and install hydrants in areas without community water systems
- Assess conditions for facilities located in forested areas
- Promote alternatives to forest-related tourism

Source: Hazard Mitigation Plan, Rio Arriba Co., NM
insurance, and to gather data about structures in the 100-year floodplain through the County’s records and Geographic Information System.

**Flash Flood Records, Rio Arriba County, New Mexico**

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Mag</th>
<th>Dth</th>
<th>Inj</th>
<th>PrD</th>
<th>CrD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chili</td>
<td>9/1/1994</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Española</td>
<td>9/7/1994</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Española</td>
<td>9/8/1995</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$374,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>Española</td>
<td>7/4/1998</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$100,000</td>
<td>$0</td>
</tr>
<tr>
<td>Española</td>
<td>7/7/1998</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$300,000</td>
<td>$0</td>
</tr>
<tr>
<td>Española</td>
<td>7/16/1998</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$5,000</td>
<td>$0</td>
</tr>
<tr>
<td>Los Ojos</td>
<td>8/2/1999</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$150,000</td>
<td>$0</td>
</tr>
<tr>
<td>Santa Clara Pueblo</td>
<td>6/16/2000</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Española</td>
<td>8/5/2004</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Española</td>
<td>8/11/2005</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Dixon</td>
<td>8/15/2006</td>
<td>-</td>
<td>1</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Santa Clara Pueblo</td>
<td>8/26/2006</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Barranca</td>
<td>7/21/2009</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$20,000</td>
<td>$500</td>
</tr>
<tr>
<td>Santa Clara Pueblo</td>
<td>8/21/2011</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Santa Clara Pueblo</td>
<td>7/11/2012</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Abiquiu</td>
<td>7/21/2012</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$2,500</td>
<td>$0</td>
</tr>
<tr>
<td>Santa Clara Pueblo</td>
<td>8/18/2012</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Chili</td>
<td>8/22/2012</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>County Totals</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>$951,500</strong></td>
<td><strong>$30,500</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
HISTORIC RAINFALL EVENTS

Rio Arriba County has experienced some problematic rain events in conjunction with the monsoon seasons. Just recently, in September 2013 Rio Arriba, excessive precipitation caused flood damage to homes, accessory structures, arroyos, acequias, and even submerged vehicles with silt and debris. The table below is a comprehensive list of the more significant precipitation reports that were received for the 9-day event period.

**Rainfall Summary: September 10-18, 2013**

<table>
<thead>
<tr>
<th>Location (source)</th>
<th>Precipitation Total (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abiquiu 7.5 WNW (CoCoRaHS)</td>
<td>4.38</td>
</tr>
<tr>
<td>Espanola 1.1 SE (CoCoRaHS)</td>
<td>3.86</td>
</tr>
<tr>
<td>El Rito 2.3 NW (CoCoRaHS)</td>
<td>3.65</td>
</tr>
<tr>
<td>Truchas (RAWs)</td>
<td>3.62</td>
</tr>
<tr>
<td>Jarita Mesa (RAWs)</td>
<td>3.59</td>
</tr>
<tr>
<td>Espanola 5.4 WNW (CoCoRaHS)</td>
<td>3.52</td>
</tr>
<tr>
<td>Abiquiu Dam</td>
<td>2.97</td>
</tr>
<tr>
<td>Coyote (RAWs)</td>
<td>2.91</td>
</tr>
<tr>
<td>Tres Piedras (HCN)</td>
<td>2.57</td>
</tr>
<tr>
<td>Deadman Peak (RAWs)</td>
<td>2.03</td>
</tr>
<tr>
<td>Chama (COOP)</td>
<td>1.97</td>
</tr>
<tr>
<td>Dulce (RAWs#2)</td>
<td>1.84</td>
</tr>
<tr>
<td>Heron Dam (COOP)</td>
<td>1.84</td>
</tr>
<tr>
<td>Stone Lake (RAWs)</td>
<td>1.60</td>
</tr>
<tr>
<td>Jicarilla Ranger Station (HCN)</td>
<td>1.47</td>
</tr>
<tr>
<td>El Vado Dam (COOP)</td>
<td>1.31</td>
</tr>
</tbody>
</table>
The Rio Chama flooded out of its banks, causing damage to nearby homes. Water reached just beneath the windows of this home near Chamita. Image taken on September 18, 2013.

DAM FAILURE

Description
A dam is a barrier across flowing water that obstructs, directs or slows flow, often creating a reservoir, lake or impoundment. Most dams have a section called a spillway or weir, over or through which water flows, either intermittently or continuously. Dams fail in two ways: a controlled spillway release initiated to prevent full failure; or the partial or complete collapse of the dam itself. In each instance an overwhelming amount of water, and potentially debris, is released. Dam failures are rare, but when they occur can cause loss of life, and immense damage to infrastructure and the environment.

Common reasons for dam failure are listed below:
- Substandard construction materials/techniques
- Spillway design error
- Geological instability caused by changes to water levels during filling or poor surveying
- Sliding of a mountain into the reservoir
- Poor maintenance, especially of outlet pipes (Extreme inflow)
- Human, computer or design error
- Internal erosion, especially in earthen dams.
- Earthquakes
LOCATION & EXTENT

Dam failure can occur with little warning. Intense storms may produce a flood in a few hours or even minutes from upstream locations. Dam failure can occur within hours of the first signs of breaching. Although the floodwaters will drain, the area will be affected by flooding from the dam failure for days to weeks and the destruction will affect the area for years.

Rio Arriba County and its participating jurisdictions have one dam of interest within its borders: the Abiquiu Dam. The USACEs ranks each dam, reservoir, and WID on their hazard risk as either low, significant, or high. The Abiquiu Dam is categorized as “high” hazard. Maps on the following pages depict the location of Abiquiu Dam and a USACE developed inundation zones.

The Abiquiu Dam is topographically elevated in relation to the City of Española. If the dam fails, the USACE estimates the resulting floodwaters will reach an elevation of 5592 feet from forced drainage, 5634 feet with dam failure, and 5629 feet with sudden failure.
PREVIOUS OCCURRENCES

There are more than 80,000 dams in the United States, according to the 2007 update to the National Inventory of Dams. Approximately one third of these pose a ‘high’ or ‘significant’ hazard to life and property if failure occurs.

Presently there are no incidents of dam failure in Rio Arriba County or its participating jurisdictions.

PROBABILITY OF FUTURE EVENTS

As previously stated there can be advanced warning to no warning at all for a dam failure event. At present, there is no history of a dam failure of any size in Rio Arriba County or its participating jurisdictions. In lieu of any historical events, the next best prediction tool would be based on the structural state of the dam. However, maintenance and structural information on the USACE’s dams in Rio Arriba County and its participating jurisdictions is confidential information and not for public use.

Given the absence of any historical precedence of dam failure in Rio Arriba County and its participating jurisdictions, information on the dams being poorly maintained, or having reoccurring structural flaws, the probability of experiencing a dam failure event is categorized as ‘rare.’

VULNERABILITY & IMPACT

Dam Failure Impacts

The specific impacts of a dam failure are unknown, however, the USACE has conducted an inundation study. The models results are detailed below for the U.S. Route 285 bridge crossing through Española.

Table 10 – Abiquiu Dam Failure Inundation Scenarios

<table>
<thead>
<tr>
<th>Distance from Dam: 35.4 Miles</th>
<th>Probable Maximum Flood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure</td>
<td>Without</td>
</tr>
<tr>
<td>Peak Flood Time Hours</td>
<td>62</td>
</tr>
<tr>
<td>Peak Elevation (ft.)</td>
<td>5592</td>
</tr>
</tbody>
</table>

*The data are from the USACE.

Vulnerability of Facilities

Facilities within a dam failure inundation area are at extreme risk. The water level of a dam failure can range from inches, causing damage similar to small floods, to completely engulfing a structure in water. Additionally, the speed of the flow can cause variations in impact. A slow flow will cause damage similar to a riverine flood; however, a fast moving, high level flow has the potential to completely destroy a structure.
**Vulnerability of Population**
Populations within a dam failure inundation area are at extreme risk. Depending on the speed of the water’s arrival, a community’s population may not have time to evacuate. Additionally, evacuation routes can be blocked by the dam waters. If flood waters arrive quickly, many people can die. Depending on the elevation of the water, a community’s population may not have any available shelter to avoid the waters.

**Vulnerability of Systems**
Community systems with a dam failure inundation area are at extreme risk. Depending on water level, and arrival speed a community’s entire energy infrastructure, transportation networks, and economic systems could be completely destroyed.

**Infrastructure & Critical Facilities**
A complete list of infrastructure and critical facilities can be found in Appendix D. Through the USACE’s inundation study, the following infrastructure and critical facilities are estimated to be at risk.

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Abiquiu Dam Inundation Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rio Arriba County</td>
<td>EOC (1), Fire Station (1), School (1)</td>
</tr>
<tr>
<td>Chama</td>
<td>-</td>
</tr>
<tr>
<td>Española</td>
<td>EOC (1), Fire Station (2), School (3)</td>
</tr>
<tr>
<td>Jicarilla Apache Nation</td>
<td>-</td>
</tr>
<tr>
<td>NNMC - Española</td>
<td>College Structures</td>
</tr>
</tbody>
</table>

**HUMAN-CAUSED HAZARDS**

Terrorism and hazards created by human error are difficult to predict or prevent because they can occur anywhere. In the case of Rio Arriba County, potential hazards related to hazardous materials operations and transportation from Los Alamos National Security (LANS) can be planned for, because locations for these activities are known. The Rio Arriba County *Hazard Mitigation Plan* proposes that its Mitigation Planning Team work with LANS to ensure that adequate warning systems are installed to warn nearby residents of toxic spills, and that the facility is in compliance with local, state and federal regulations. The plan addresses random human-caused hazards by focusing on key facilities and emergency service providers. For example, the plan proposes to protect public water systems and other facilities from contamination, and to improve the capability of fire, police and medical personnel to respond to emergencies through the use of backup generators, fuel tanks, communication systems and early warning devices. Finally, public education is recommended to prepare residents and business owners for potential releases of hazardous materials.
OTHER HAZARDS

Unlike wildfires and floods, which are typically concentrated in one area, severe wind and weather hazards would likely affect the entire County or region. Efforts to protect against severe weather focus on identifying individual structures and critical facilities that are vulnerable to severe weather, public education, and improvements to building regulations.

In terms of earthquakes, structures can be made safer by constructing new and retrofitting existing buildings according to the most recent seismic design specifications. However, the Rio Arriba County Hazard Mitigation Plan recommends retrofits only for critical facilities or special needs populations, because the risk of earthquakes is low in Rio Arriba County.

Goal 1: Reduce potential loss of life and damage to existing community assets, including structures, critical facilities and infrastructure from all natural and human-caused hazards such as wildfires, flooding, drought, severe weather, earthquakes and contaminants.

- **Strategy 1:** Develop an all-hazard, countywide early warning system, including but not limited to sirens and emergency broadcast on radio and television.
- **Strategy 2:** Identify, map and create development standards and safety requirements for hazard-prone areas such as the urban wildland interface, floodplains and flood fringes, as well as structures and critical facilities located in these areas, and identify extremely vulnerable properties.
- **Strategy 3:** Map, inventory and assess the vulnerability of critical facilities and structures in hazard-prone areas.
- **Strategy 4:** Develop a countywide storm water management plan that addresses flood protection and erosion control and leads to implementation of soil stabilization and flood control projects such as dikes and culverts.
- **Strategy 5:** Develop capital improvement plans to identify and seek local, state and federal funding for priority hazard mitigation projects.
- **Strategy 6:** Develop partnerships with the Northern New Mexico Food Bank and local Food Councils to educate and promote countywide emergency food storage and preparedness including 72 hour kits.

Goal 2: Promote disaster-resistant future development by limiting development in high hazard areas.

- **Strategy 7:** Adopt land use and zoning regulations that limit development in the floodplain and that limit development in the urban wildland interface and that mitigate against natural and human-caused hazards, such as requiring fire breaks...
and defensible spaces around all new development, subdivisions, and homes in the urban wildland interface areas and onsite retention of storm flows, and drought.

- **Strategy 8:** Require at least a one foot or two foot freeboard for development in floodplains.

**Goal 3: Promote education of hazard mitigation as a public value in recognition of its importance to the health, safety and welfare of the population.**

- **Strategy 9:** Work with the County Fire Marshall to develop and implement a public education campaign to educate County residents on hazard mitigation topics such as wildfire prevention through defensible space creation, vegetation management and fuel reduction; flood protection through on-site retention and purchase of flood insurance; water conservation techniques and retrofitting; and actions to take during an emergency situation.

- **Strategy 10:** Increase countywide partnerships on hazard mitigation through the Rio Arriba County Mitigation Planning Team, including the Project Impact initiative, which promotes disaster resistance in the Rio Arriba County business community and other local community disaster relief teams.

**Goal 4: Improve fire protection infrastructure in the County and reduce the ISO rating for all fire department for the county.**

- **Strategy 11:** Amend the Design and Development Ordinance to require fire suppression infrastructure, such as water tanks, water lines, fire hydrants, and dry hydrant areas, where no such infrastructure currently exists.

- **Strategy 12:** Develop and implement a County vegetation management program to reduce fuel loads and noxious weeds for County residents and businesses in the urban wildland interface.

- **Strategy 13:** Promote partnerships with the federal agencies and the Vallecitos Sustained Yield for thinning and timber harvesting in high-fuel areas.

- **Strategy 14:** Improve the ISO rating to eight (8) or better for all County fire departments by 2015.

**Goal 5: Upgrade and enhance the County’s emergency response system to ensure that all areas have adequate police, fire and emergency services.**

- **Strategy 15:** Improve the accuracy of the E-911 database by establishing agreements with telecommunication providers to ensure that old phone numbers are verified, new phone numbers are matched to accurate physical addresses, and all phone numbers are recorded with the County.

- **Strategy 16:** Continually maintain the accuracy of the County’s E-911 database through building permit data and data from telecommunication providers.
• **Strategy 17:** Inventory existing emergency response infrastructure in communities across the County. Assist communities to update their infrastructure when possible and facilitate interim sharing of services between communities where appropriate.

• **Strategy 18:** Assess communication infrastructure for emergency response in the County and pursue funding to improve areas where problems with communications between responders and 911 dispatch are encountered.

• **Strategy 19:** Support legislation to increase retirement benefits for volunteer fire fighters

• **Strategy 20:** Ensure consistency between the data in the 911 database and the NMDOT database so that roads are properly labeled for emergency purposes
IMPLEMENTATION

Comprehensive plan administration, amendment and update

The Rio Arriba County Comprehensive Plan is intended to be a dynamic document that should be implemented and reviewed on a continuous basis. As priorities and conditions change, so should these changes be reflected in the Plan. The Comprehensive Plan should be informally reviewed once a year or as needed for refinements or minor updates. There should be a formal update of the County Comprehensive Plan every five years, using updated information from the Census and other sources on socio-economic and geographic data.

The Rio Arriba County Board of Commissioners will appoint a Comprehensive Plan Implementation Task Force to assist in developing a Strategic Action Plan to implement the strategies and for the formal County-wide Plan Update process. The Task Force should include, but is not limited to, representatives from the County Departments, Planning and Zoning Commission, business and real estate interests, ranching/agriculture, water interests and outlying communities. The Plan Update process will recognize the residents as a vital part of the planning process and its implementation.

The Comprehensive Plan recognizes the NM state law requirement that land use regulations, if formulated and adopted in Rio Arriba County, must be in accordance with the Comprehensive Plan. New Subdivision regulations, if more stringent than those in the NM Subdivision statute, must also be identified on their need and specified in the Comprehensive Plan, as per Senate Bill 410 passed in the 2003 Legislative session.

Implementation Strategy Priorities

The Implementation strategies from each Element were prioritized by the County residents at the November, 2007 community meetings. Following a review and revision of all the strategies within an Element, the residents placed dots on those strategies most important to them. By having to make a choice in selecting a limited number of strategies, those strategies with the highest number of dots were determined to be the highest priority strategies. The strategies have been prioritized within each Plan Element. The highest votes for specific implementation strategies are included in the Appendix.

PRIORITY STRATEGIES BY PLAN ELEMENT

The strategies within each Plan Element that received the highest priority by the community residents in the 2008 round of community input are identified below, in order of their ranking. The county should create a yearly list of priorities for the County and have that approved separately by the Board of County Commissioners.

LAND AND WATER PRIORITY STRATEGIES

- Recognize and encourage the adjudication of water rights of all acequias in Rio Arriba County as per the Treaty of Guadalupe Hildago.
• Inform and encourage water right owners, before they sell their water rights, to transfer, lease or extend first right of refusal to local acequia water banks

• Map the acequias with priority dates of water rights and Mutual Domestic Water Associations and delineate the watersheds that serve them. Encourage the acequia and mutual domestic areas with serious water supply or water rights issues to work with the County and OSE in establishing Critical Management Areas and Stream Corridor Areas.

• Increase water storage capacity through watershed management and snow retention at high elevations.

• The interests of local ranchers will be represented by the County in agricultural land policy decisions using the Treaty of Guadalupe Hidalgo for guidance.

• The County, in partnership with the USDA and Cooperative Extension Service, will inform and encourage ranchers and farmers to place conservation easements on their property and take advantage of the tax benefits offered by State and Federal legislation.

TRANSPORTATION PRIORITY STRATEGIES

• Prepare a Rio Arriba Trail, Bikeway and Open Space Master Plan in collaboration with land grant associations, BLM Rio Arriba Resource Area and the Carson National Forest Ten Year Management Plan.

• Review traffic accident statistics and prioritize the highest-risk county and state roadways and their causes, and working with the NMDOT, program these safety improvements in the State Transportation Improvements Program (STIP).

• Support and expand the North Central Regional Transit District, including park and ride facilities.

• Identify roads that are feasible for bike lanes and include dedicated bike and pedestrian facilities in new roadway projects when easement width is available.

FACILITIES & INFRASTRUCTURE PRIORITY STRATEGIES

• Adopt stricter land use regulations for inoperable vehicles and abandoned mobile homes and increase the County’s code enforcement staff.

• The County should partner with PNM to provide natural gas to rural communities.

• Through capital improvements plans and grant writing, aggressively seek state and federal funding for the Rio Arriba Health Commons and primary care facilities.
• Support the North Central Solid Waste Authority’s efforts to construct and operate a recycling center, collect residential and commercial recycling, develop a yard waste program, and provide large-item pick up and problem waste disposal services.

ECONOMIC DEVELOPMENT PRIORITY STRATEGIES

• Work with Northern New Mexico College to develop a diverse array of four year degrees for health professionals in fields such as medicine, dentistry, midwifery, social work, psychology, counseling, early childhood education, and substance abuse. Develop a scholarship fund for students and opportunities to pursue advanced degrees that encourages their retention as health care professionals in the community.

• Work with the New Mexico Departments of Economic Development and Workforce Solutions to promote and expand training and opportunities for less skilled or experienced workers through volunteer work experience, on the job training, and workforce development programs.

• Work with the region’s agricultural producers and the New Mexico Association of Farmer’s Markets to identify the needs of growers and strategies to expand the market for locally produced agriculture - including the creation of value-added products.

• Investigate incentives to employers and County contractors to establish a youth training and employment provision in their operations.

• Expand the use of existing community facilities and programs that focus on arts and culture.

HOUSING PRIORITY STRATEGIES

• Form an affordable housing task force to identify housing needs that are not being met in the County. Examples may include workforce, senior, multi-family and special needs housing and identify opportunities that exist for financing of special projects with organizations such as the New Mexico Mortgage Finance Authority.

• With the help of affordable housing organizations, such as the Habitat for Humanity, Homewise and the Enterprise Foundation, identify and promote programs and incentives for home rehabilitation and property owners.

• Conduct a countywide housing assessment to better understand housing availability, affordability, and areas of need. 
HAZARDS MITIGATION PRIORITY STRATEGIES

- Improve the accuracy of the E-911 database by establishing agreements with telecommunication providers to ensure that old phone numbers are verified, new phone numbers are matched to accurate physical addresses, and all phone numbers are recorded with the County.

- Develop an all-hazard, county-wide early warning system, including but not limited to sirens and emergency broadcast on radio and television.

- Develop a county-wide storm water management plan that addresses flood protection and erosion control and leads to implementation of soil stabilization and flood control projects such as dikes and culverts.

- Implement a public education campaign to educate County residents on hazard mitigation topics such as wildfire prevention through defensible space creation, vegetation management and fuel reduction; flood protection through on-site retention and purchase of flood insurance; water conservation techniques and retrofitting; and actions to take during an emergency situation.
APPENDIX

Appendix A: Overall Highest Priority Strategies

Appendix B: Treaty of Guadalupe Hildago


Appendix D: Comments from 5 community workshops conducted in July, 2006

Appendix E: Comments from 7 community meetings conducted in September, 2014

Appendix F: Public Welfare Policy Statement

Appendix G: County of Rio Arriba Wildlife of Concern Table
   Source: U.S. Fish and Wildlife Service

Appendix H: Critical Management Areas

Appendix I: Development Node Areas

Appendix J: Projected Population Change 2010-2015
APPENDIX A

OVERALL HIGHEST PRIORITY STRATEGIES

The following strategies were those that received the highest “votes” from the community when asked to place a dot next to the strategies that were most important to them during the community meetings. The total number of votes are identified in parentheses.

- Recognize and encourage the adjudication of water rights of all acequias in Rio Arriba County as per the Treaty of Guadalupe Hildago. (74)

- Work with Northern New Mexico College to develop a diverse array of four year degrees for health professionals in fields such as medicine, dentistry, midwifery, social work, psychology, counseling, early childhood education, and substance abuse. Develop a scholarship fund for students and opportunities to pursue advanced degrees that encourages their retention as health care professionals in the community. (50)

- Inform and encourage water right owners, before they sell their water rights, to transfer, lease or extend first right of refusal to local acequia water banks (44)

- Adopt stricter land use regulations for inoperable vehicles and abandoned mobile homes and increase the County’s code enforcement staff. (44)

- The County should partner with PNM to provide natural gas to rural communities. (43)

- Through capital improvements plans and grant writing, aggressively seek state and federal funding for the Rio Arriba Health Commons and primary care facilities. (41)

- Support the North Central Solid Waste Authority’s efforts to construct and operate a recycling center, collect residential and commercial recycling, develop a yard waste program, and provide large-item pick up and problem waste disposal services. (41)

- Work with the New Mexico Departments of Economic Development and Workforce Solutions to promote and expand training and opportunities for less skilled or experienced workers through volunteer work experience, on the job training, and workforce development programs. (40)

- Map the acequias with priority dates of water rights and Mutual Domestic Water Associations and delineate the watersheds that serve them. Encourage the acequia and mutual domestic areas with serious water supply or water rights issues to work with the County and OSE in establishing Critical Management Areas and Stream Corridor Areas. (40)

- Increase water storage capacity through watershed management and snow retention at high elevations. (39)
• Form an affordable housing task force to identify housing needs that are not being met in the County. Examples may include workforce, senior, multi-family and special needs housing and identify opportunities that exist for financing of special projects with organizations such as the New Mexico Mortgage Finance Authority. (37)

• Prepare a Rio Arriba Trail, Bikeway and Open Space Master Plan in collaboration with land grant associations, BLM Rio Arriba Resource Area and the Carson National Forest Ten Year Management Plan. (29)

• Improve the accuracy of the E-911 database by establishing agreements with telecommunication providers to ensure that old phone numbers are verified, new phone numbers are matched to accurate physical addresses, and all phone numbers are recorded with the County. (28)
APPENDIX B

TREATY OF GUADALUPE HIDALGO

The Spanish and Mexican Customs and Laws are Protected by the Treaty of Guadalupe Hidalgo which is the Controlling Law in New Mexico.

1. The Treaty of Guadalupe Hidalgo Resides in the Constitution of the State of New Mexico.

Generally the Treaty of Guadalupe Hidalgo has been given legal weight in various jurisdictions, although there is still considerable controversy as to whether is application under international legal principles has been met, especially in the confirmation process of the land grants in New Mexico. See generally “2004 GAO Land Grant Study”, the Executive Summary, Chapter 1, Chapter 2, Chapter 3, and Chapter 4. However, in New Mexico the legal applicability of the Treaty of Guadalupe Hidalgo has been assured by the adoption into the Constitution of the State of New Mexico of Article II, Bill of Rights, Section 5, “Rights under Treaty of Guadalupe Hidalgo preserved”, which reads as follows: The rights, privileges and immunities, civil, political and religious guaranteed to the people of New Mexico by the Treaty of Guadalupe Hidalgo shall be preserved inviolate.

New Mexico is the only state from the Mexican territory ceded to the United States, (comprised of Arizona, California, Nevada, Utah, and parts of Colorado and Wyoming), which has ratified its state constitution with a provision requiring that the “Treaty of Guadalupe Hidalgo shall be preserved inviolate.” There is no mention whatsoever of the Treaty of Guadalupe Hidalgo in any of the constitutions of the aforementioned states. While these neighboring states are free to give such weight to the Treaty of Guadalupe Hidalgo in matters of law as deemed proper, New Mexico is also required to preserve “inviolate...the rights...guaranteed to the people of New Mexico” by the Treaty.

2. Constitutional Provisions are the Supreme Law of the Land and Must be given Legal Effect.


Since the state constitution is supreme or paramount law, the branches of government cannot lawfully act beyond its limitations and its provisions control in any case of conflict with all lesser laws, such as statutes, local ordinances, or administrative regulations.

It is the basic and supreme law of a state...It is the mandate of a sovereign people to it servants and representatives, and no one of them has a right to ignore or disregard its mandates; the legislature, the executive officers, and the judiciary cannot lawfully act beyond its limitations. Thus, it is also the absolute rule of action and decision for all departments and offices of
government with respect to all matters covered by it, and must control as it is written until it is changed by the authority which established it.


In light of this additional state constitutional protection, it is the position of the Northern New Mexico Stockman’s Association that the rights of the Hispano stockman to forage, water and access are rights which vested under the Spanish and Mexican periods and deserve federal recognition and protection. Federal law, immediately after the War with Mexico, recognized and confirmed these vested property rights in the Kearny Code of 1846. Since these vested rights to forage, water and access originally enjoyed the protection of the federal Kearny Code and are now subject to the protection of the state constitution, Article II, Section 5, “Rights under Treaty of Guadalupe Hidalgo preserved”, the various agencies of the United States government should give these property rights deference in the management of lands in New Mexico under their control.
APPENDIX C

TREATY OF GUADALUPE HIDALGO PROVISIONS

1. Rio Arriba County does not waive its sovereignty, power, jurisdiction granted under the U.S. Constitution, New Mexico State Constitution, Treaty of Guadalupe Hidalgo (Treaty), Kearney’s Code and any applicable laws and statutes as it may to pertain to protecting the rights of the citizens of Rio Arriba County.

2. Prohibit further designation of wilderness areas in the County as this designation conflicts with the Treaty, Kearney’s Code and the United States Constitution, Article 1 Section 8 Clause 17.

3. Prohibit the introduction of large predators (wolves, grizzly bears, mountain lions etc.) by Federal and State Agencies or any other entities that threaten or endanger the health, safety and welfare of the citizens.

4. Prohibit the suspension and cancellation of permitted and/or adjudicated livestock numbers by federal and state agencies.

5. Prohibit livestock reductions in terms of numbers and season of use (time) on lands being administered by federal agencies.

6. Big game populations shall be managed by the State in such a manner that it does not impact the historical grazing rights of ranchers and the authorized livestock numbers.

7. If a private citizen of the County chooses not to permit the federal agency from managing his private property, the sheriff shall protect him from harassment and intimidation.

8. Federal and state agencies shall preserve, protect, recognize, respect and honor the cultural, customs, traditions and values of Hispanics per the Treaty including but not limited to just the grazing rights, stock water and forage rights, acequia water rights, firewood gathering, logging, thinning, mining, pinon picking, hunting, fishing, recreation, etc.

9. Prohibit the federal and state governments from filing on the vested water rights of the citizens of the County contrary to the Prior Appropriations and Beneficial Use Doctrines.

10. Prohibit any federal, state or local entity from acquiring private property through eminent domain from any citizen without just compensation for highest and best use of the property.

11. All irrigation water shall remain attached to the land it serves and cannot be transferred or sold out of the community acequia without 100 percent approval of the Parciantes, Acequia and the County Commissions.

12. The County shall not enter into partnerships or agreements of any kind with federal and state agencies that may compromise the rights of the citizens, except in planning or requesting assistance for natural and man-made disasters such as land slides, avalanches, wildfires, floods, tornadoes, snow and ice storms, droughts, search and rescue, nuclear and radioactive mishaps, oil and gas spills, and biological and terrorism warfare etc.

13. Delete the establishment of a 300’ riparian habitat corridor from all water courses because it conflicts with historic rights and traditional uses on those corridors and lacks clarity in the plan.

14. The Forest Service Travel Management Rule shall abide in its entirety with RS 2477, whereby it protects and keeps open all roads and trail easements that existed prior to 1976, with no exceptions.
15. National Forests shall be thinned and logged to keep them in a healthy state so as to enhance the water flows from the forests and to produce a sustainable yield of timber. If the Federal government does not maintain the forests in a healthy state the County shall pass an ordinance to protect the private property from mismanagement of the timber and water.

16. All federal agencies shall comply with all provisions of the Range Management Act of 1978, Section 8, which prohibits federal agencies from cutting any grazing permit or removing any ranchers from the land.

17. Federal and state agencies shall seek cooperating agency status with the county before initiating any actions that may conflict with any of the provisions listed above.
APPENDIX D

Rio Arriba County Comprehensive Plan
Comments (unedited) from the five community workshops conducted in July, 2006

Vision Statement
- Return all land sold to the nation back to the county tax rolls!!!
- Suggestion: use the word heritage.

Rio Arriba County is a unique rural area where generations of families have chosen to live and new neighbors arrive every day. By providing quality education and diverse economic opportunities, Rio Arriba County will maintain, enhance and strengthen our traditional land-based communities and cultures and improve our quality of life. We will protect our heritage and the environment developing... develop housing, quality education (community education vs. public institutionalized education) higher education. And business-friendly environments that create prosperity and a bright future for our youth. Restitution of our land grants protect our water to enhance agriculture and natural resources will sustain us and our families, and agriculture will protect our precious water and natural resources whereas, unchecked development will deplete them. We will move towards a future where our children and grandchildren can find their own paths, perhaps along an acequia, and feel the sense of place we have today. Too long.

Land and Water goals

- Develop programs/strategies to encourage more people to use their land for agriculture.
- Especially prior water rights. –Yes
- Develop marketing strategies/facilities to process/ its one thing to grow it, what do you do after harvest?
- County needs a relevant development code.
- Need terrain ordinance, ridge top ordinance, escarpment ordinance, enhanced mining ordinance, sand and gravel, hard rock.
- Goal 6. Yes!
- Includes livestock/ animal husbandry.
- Local water markets.
- Goal 7. Clarify this means control “light night” pollution.
- Pursuant to New Mexico night sky protection act.
- Goal 8. I understand the county is going to build a large community center on some of the 175 acres of land given to them by the BLM in Alcalde. We need a community center in Chimayo for education for children to connect with nature and the earth- to understand our interdependence and the preciousness of wildlife and habitat and clean water. A big room where they can dance, a meeting place for adults to come together in community and to dance, and an art and craft room and video showings. It would be great if it was built with environmentally friendly materials and solar energy and wind energy and catching water etc. - as a model of environmentally friendly building. Also a place to promote/educate about perm culture and sustainable agriculture (and conflict resolution! - helping people to get along/understand one another). People need to come together to
bring people back to working the land. Los Alamos is polluting our earth and water, this must be stopped, and clean up happen. The people need to come together! Air enforcement rules to stop big trucks spew black clouds of hideous pollutants into air.

- Safe drinking water/ better uses of land to accommodate extended- families- in acreage per need.
- Support communities in preserving traditional landscapes, historical districts and historic buildings.
- Specify a process for becoming a “traditional community”.
- We need a non-denominational cemetery in the Espanola Valley/ Rio Arriba County.
- Baby boomers are starting or will fill up local ones soon. (A fact of life)
- We need an escarpment regulation to preserve our scenic landscape.
- Protect special scenic views document, map, and restrict development at these sites.
- Protect old adobe homes and structures! Give them recognition and perhaps open them up for others to see.
- Develop a way for communities to participate in documenting historic buildings and districts, a county group to get started on this.
- Re: Goal 5. Future creation of more community water and sewer/septic systems- promote underground water supply.
- Goal 1. This is true.
- Water quality storage/space.
- Educate about and protect the water rights within the region.
- How can you restore lands that have been built on?
- Self-employment.
- Issue-most private land is in river valleys.
- Protect the Rio Grande from pollution.
- Protect Rio Chama Bosque.
- Goal 3. I like this.
- Educate citizens of all ages about the values, history, principles, (opportunities), and economic benefits of the relationship between land and water so that future generations will (should the word be changed to “can”) continue to work the land.
- Building sewage treatment plants provide portable water.
- Promote water catchments.
- Grey water/conservation plans.
- Exact a building moratorium until we figure out how to do it.
- No pole lights.
- Goal 7. Yes.
- Goal 8. Implement the existing agriculture protection ordinance its mandatory- not permissive.
- Goal 9. Encourage xeriscaping and native planting, especially with new development.
- Protect water rights, do not separate water from land, and protect citizens from changes by state engineers.
- Create order that address and enforce protection.
Housing Goals

- Work with lending institutions, realtors, and builders to promote homes vs. mobile homes. Restrict mobile homes.
- Develop criteria to develop waste water systems that will allow clustering/ more than one home on a ¾ acre.
- Contact MFA for insight.
- Provide incentives for the rehabilitation (does this mean restore? “Restoration”) of existing site-built residential structures.
- Beware “gentrification”.
- Situation: as strict or stricter than state which affects poor and self-built.
- “Housing opportunities” what does this mean? Housing models? Types of construction? Access to financing/land?
- Model SF homes programs- industry zoning/ 30 % is too much but 10 % is a good start.
- Special laws or rulings governing owner built sustainable housing special support (I.Q. taxes) for “general” house and land usage and construction.
- Affordable housing for all families.
- Don’t make it so hard to get permits.
- State Const. Industries and state regulations should promote self-built and site built.
- How about county building and fixing those 2 beautiful old houses, near courthouse in T.A. for future generations. They are falling apart and need restoration.
- Better enforcement of regulations for septic, trailer and house placement. Too much escape.
- Adequate resources to enforce regulation already adapted by the county.
- Goal 5. Does this mean to include low income, middle class? Promote programs for middle class- are their programs? Such as funding programs that are accessible for permanent homes (stick build, adobe) as M.H. and tax credits for solar buildings/ green buildings.
- Require developers to provide infrastructure before allowing permits.
- Yes. Encourage home-ownership relationship instead of mobile homes, which especially waste people’s money.
- Planning must be more open and receptive to the mess around us.
- Create a building code and enforce building existing regulations.
- Allow peoples who have land to sell it.
- Enforcement, enforcement, enforcement.
- Better policing of land use to code.
- Federal funds are available for low income housing projects.
- Make building code that supports and encourage sustainable building- adobe, straw bale, etc.
- Or- pilings- house built above high water level.
- Goal 7. Enforce septic permit regulations.
- Enforce the 1-home/3/4 acre law to protect our water supply from septic contamination. Publish a list of contact numbers to report violations.
- Enforce this to 1-3 acres. 300-500 foot separation.
Economic Development Goals

- Separate goal to emphasize arts and culture.
- Agricultural-based business must be number one!
- Need improvements in educational system overall.
- It’s one thing to train the workforce- where do I go (work) after I’m trained? What types of skills will be demanded in 5, 7, 10 years.
- Keeping our youth in the area working and living.
- With equal opportunity for our residents.
- Start with LANL and streamline the procurement bureaucracy for small business- LANL has billion-dollar budget and the county/region gets pennies for goods/services.
- LANL is not a good neighbor.
- Conduct comparative advantage analysis.
- Goal 5. (Comes second after agricultural endeavors).
- Not everybody is agriculture oriented it’s highly unlikely the majority of our youth will become Mr. Green Jeans.
- Goal 8. Encourage/incentive
  - Wind power energy.
  - Control timber harvest.
  - Erosion control.
  - Support by county to put in place incentives to present soil erosion on private land.
  - Need education and spay/neuter campaign.
  - Is there a leash law ordinance?
  - Establish countywide spay and neuter program/with requirements for owners to comply.
  - Curbside pickup for recycling.
  - (For the health of the county) establish and maintain easily accessible recycling centers throughout the county.
  - Goal 11. Very important.
  - Start with reviving your small farms, maybe a local farmers market, a farmers’ cooperative, promotion of local crops in regional markets (Taos, Los Alamos, Santa Fe).
  - Tap into LANL (LANS) Economic development programs to help build more diverse economic base.
  - Use the Chimayo Youth Conservation Corps. As a model for programs throughout the county.
  - Provide an educational program for all the elements so citizens are more informed.
  - Education must come first- the level of education must be increased to give our kids the tools they need to get into college and then promote jobs.
  - Day care services for working moms/ dads.
  - Work programs for youth essential- very little available today- need programs that encourage higher education.
  - Support the arts and tourism so this because a higher economic element in the county.
  - Creating good customer service to keep the locals from going outside area to purchase goods and services.
  - Change El Rito campus format to seminar (1 to 2 week) classes.
• Install hiking/biking trail between El Rito campus and rural events center (along creek side).
• El Rito campus would provide trade and arts classes in condensed format.
• Especially local organic farming, etc. energy businesses (building).
• Utilize El Rito campus.
• Involve our youth.
• Rio Arriba has rich natural resources fishing, hunting, hiking, ATV, etc. all need is to enhance and facilitate these activities. More money, taxes, and jobs for the entire area.
• Create tax-incenting plan to entice business in area.
• (Goal 7) to support business growth.
• (Goal 8) that won’t pollute rivers and land.

Goal 1: Strengthen and support opportunities for local arts, culture and agricultural-based businesses.
• What is being proposed to strengthen and support these opportunities?
• Are the programs that currently exist being fully utilized? Seek out what the government agencies (State and Federal) have to offer, such as: Economic Development, International Trade Division, Dept. of Tourism, Dept. of Cultural Affairs, and Department of Agriculture. Non-government entities also have programs that can assist, such as the Regional Development Corporation-Empowering Business Spirit (EBS) initiative.

Goal 2: Create a County-wide workforce training program.
• Basic soft skills can be taught across the board, but without specific industries in the area, there is no target to train to.
• There is no mention of working with local school districts and/or Northern New Mexico College on training towards any specific industry.
• There is no mention of what the local businesses are looking for in regards to workforce training.

Goal 3: Promote the use and purchase of local goods and services that support local businesses.
• This is great, but what is being done to get outside money into the region.
• A marketing campaign could be initiated to promote the “buy local” theme but the businesses must be committed to support this. If the customer does not find what it is looking for (consistent) at the right cost, they will go outside of the area. Santa Fe, Albuquerque are not that far, not to mention the web. This would be a great platform for business/customer training.

Goal 4: Encourage the creation and retention of home-based businesses.
• How is this being done? Are there any incentives? How does this add to the economy or create jobs? Is there baseline data to track or benchmark these businesses?

Goal 5: Create and market an outdoors-oriented, historical and culturally-based tourism program.
• There is opportunity in this area, but must get public funding to get the local
infrastructure to an adequate level that will support these levels of visitors into rural
communities. Chama is an example, with their water and wastewater capacity issues.
• The Cumbres & Toltec Railroad offers opportunities in different areas, in tourism; the
train itself; and in creating a manufacturing center around the railroad industry. This
center/facility could support the other narrow gauge railroads around the country.

Goal 6: Develop a job retention program to keep jobs in Rio Arriba County.
• With no real job opportunities in Agriculture and currently no organized effort to bring in
other industry, how do you attempt a retention program?

Goal 7: Improve and expand the telecommunication system to provide local jobs and education
opportunities.
• How is the county seeking to improve and expand telecommunications, especially in the
very rural areas? Are they working with the Legislature to get the resources and/or
industry support?

Goal 8: Promote environmentally-friendly light industry and manufacturing uses.
• What has the County identified as industry targets (that they would support)
• What is being proposed to attract and/or create these companies or jobs?
• Identify current and existing assets. What can be expanded?

Other Issues/Concerns
• There is no mention on how Rio Arriba County can take advantage of Los Alamos
National Laboratory. (Spin-off, tech transfer, and commercialization) There is potential
for bringing business opportunity to Espanola and into Rio Arriba County. Because of
the non-availability of land in Los Alamos County, RA Co. could be positioning itself to
offer space (land) and bring these high paying positions down from the hill. (This should
be a priority goal)

• There is no mention on working directly with the Native American entities on economic
development initiatives. They also have land and resources that can be utilized.

• Rio Arriba County currently does not have an economic development staff person or
point of contact. This is a critical piece. There is no one person that is aware of what is
happening or the ability to coordinate. (Another goal)

• RA County can seek certification as a certified community for economic development
through the state under NMEDD’s CCI program. This certification will address several
of the issues listed.

Initiatives/Ideas
• Rio Arriba could create a business park or parks in several different areas of the county
and make use of non-agricultural lands. The park(s) could also create a business
incubator to help create/retain these small businesses. On park/complex should be in the
Espanola area to facilitate the pursuit of Los Alamos business opportunities. Other areas
to consider for industrial/light manufacturing are: Alcalde and Chama. Agricultural parks could be considered in areas of strong agriculture activity, such as: Chimayo, Abiquiu, and El Rito.

Community Facilities/Infrastructure Goals.

- The current electrical distribution system is antiquated- 3/ or 4 “bumps” a week is unacceptable! How does an inferior infrastructure encourage economy?
- They are developed! Require they install appropriate water and wastewater technology.
- Goal 2. To allow for more than one home on ¾ acre.
- Goals 2. In the future in other communities that don’t have infrastructure.
- Limit and enforce equitably (not who you know) the proliferation of individual septic systems and wells.
- Develop cluster WW systems (less expensive than big projects) to get people off septic. – Already developed need to implement.
- Establish a regional septic system with neighboring communities. Yes! !
- Create a “one-stop” “one-call” system for public emergencies.
- USFS region 3 policy- Hassell Report (1968) recommends the USFS provide their facilities to the rural communities “perhaps”- our leaders can broker a collaborative effort.
- Better lunches
- Improve recreation for the youth.
- Village incorporation with community governance and leadership to implement infrastructure.
- Need to develop community wells and senior facilities.
- Improve facilities- maintain them and keep them safe.
- Clean up crews for our roads and community- graffiti and trash clean up.
- More need of community centers for our youth, adults, and seniors.
- Build recreational facilities up north.
- Regional sports complex.
- Provide more opportunities for youth in education and training. And recreation beyond sports.
- Develop comprehensive recreational opportunities for all ages- recreational complex in high density areas further develop rural events center.
- County-wide recycling
- What about existing well and septic system on small lots? (Or not in compliance with current regulations)- way of enforcing/ changing current situations.
- Yes, parks are badly needed.
- What/who will provide maintenance and upkeep of the parks, etc.
- Develop “arts” parks and “arts” programs… youth through seniors.
- More activities at low or no cost to our youth.
- Swimming pool

Goal 1.
- Solar and wind
- Hydro
• Governmental entities need to buy into this area.

Goal 2.
• Require developer compliance.
• New wastewater system. And legal liabilities if exceeded. Through boards and assurances.
• Sewage waste disposal plants.
• Provide all residents with alternative septic system options.
• Develop/legalize alternative wastewater/black water treatment, the technology is available.
• Provide Internet access to all community members/individuals.
• And business, which provide gross receipts and taxes and jobs for county.
• Need to provide DSL service in the area working with the telephone co. and utility commission.
• Make certain current street maps are available to emergency responders.
• Need police substation at rural events center.
• Educational facilities.
• Promote international use of senior centers.
• All communities should have a community center including senior centers and gyms too.
• With an emphasis on responsible mining that is and does not damage the local communities or the natural environment. (i.e., no more high walls)
• Animals control officers need county sheriff back up.
• Make sure officers are certified.
• Promote spay/neuter programs.
• Change “open range” laws so ranchers are responsible (share) damages due to negligence, etc.
• Include education about the care and respect of all living creatures, and natural and man-made laws against neglect and abuse.
• Provide recycling.
• All serviced home provided by waste containers.
• No more “bags: by the road.
• Free dump days.
• Process to get rid of eyesores (junk, mobiles, cars, etc.).
• Pay-by taxing land owner/ deposit for cans and bottles. Paper.
• Make it easy for households to recycle.
• Waste management at every community, transfer stations.
• (Health commons facility) what and where is this?
• Create right-a-way prescriptions and setbacks from streams and rivers.
• When realtors sell property with easements buyer should have knowledge what easements mean. Especially on ditch easements and road easements.
• What about basic quality of life issues like fire protection, police protection, emergency response for health/rural areas still don’t have these basics.
• Law enforcements at all small communities.
• Goal 1. Reliability of utilities, historically electrical and water (community water) will become unavailable. The inconvenience and possibly more to households is the problem of households. A decrease, credit on the household utility bill would seem appropriate.
• Goal 12. Build bike paths and alternative transportation routes along roads and rivers/ditches.

Transportation Goals

• Address road casements and road widths, on all new additions.
• Eliminate county roads that don’t serve a purpose.
• Park and ride for Jarosa- Tierra Amarilla.
• Bus along county road 76 Chimayo to Espanola and plus more maybe.
• Transport will be needed for patients and clients who need services at the new health commons to be built adjacent to county offices.
• Enforce speed limits on high way 76. Yes. Definitely.
• Water drainage on state road 76.
• Create walkways for pedestrians.
• Goal 5. Need this.
• More buses for all of Rio Arriba county areas.
• More public transport.
• More places to ride bikes.
• Buses with drinks and snacks provided.
• Buses for women to go to and from places because of rapes.
• Bike trails.
• Graded roads with good base course.
• Need bike trails in areas of county! Equestrian trails also.
• Develop and maintain some of the old pack trails.
• Buses available to help our youth attend summer programs/activities.
• RS 2477 roads must be recognized and acceded.
• Widen highway 554 to state standard.
• Trash on road between Chama and highway 285 around bend.
• Work with state for better roads in long term. State will spend large money amounts and when done the improvements are not much better than what was already there. The new turn off to Ojo Caliente is a prime example road US 289/84 was not widened far north enough past the gas station. If effect is a dangerous area.
• Establish process for turning over private roads (privately owned publicly used) to county.

(Goal 3. Expand access and availability of the public transit system for all ages.)
• This must include rural areas north of Espanola and south of Tierra Amarilla.
• Pave more roads.
• Improve the safety of the county roadway system.
• Enforce the laws.
• Post speed signage.
• Manage animals to keep off roads.
- Land grants should determine public access on their lands not the county.
- Publish location of public lands, type of use, etc.

**Hazards Mitigation Goals**

- Stop permitting mobile homes in arroyos floodplains.
- Support volunteer fire depts. Provide resources.
- Included with the EAP (Emergency Action Plan).
- Collaborate emergency services with fire, sheriffs, etc.
- Increase storage facilities for water
- Paid RA fire department.
- Enhance emergency services in the Santa Cruz valley (SR 76 corridor), work with SF County.
- Building codes- trailers on top of the mesas.
- Enforce graffiti laws (if any) and make them harsh! I agree 100%.
- Control local residents putting up their own raised platforms for trash bags, etc. and putting trash out too early. Looks very ugly along county and state roads.
- Adopt better fire protection building code regulations- see Santa Fe County’s code- and apply to clearing around house.
- Bring back legal graffiti wall in Valdez Park.
- I agree graffiti is a huge problem
- Encourage federal government to clean up fire hazards on forest, BLM lands.
- Have a consequence for development if exceeded.
- Add intolerable high walls.
- Good idea, arroyos, setbacks, from acequias, and river.
- Establish “no build” zones.
- Fire department for 285 to Ojo Caliente.
- Goal 5 should be # 1 goal.
- Provide current and frequently updated street maps for law enforcements, fire, etc. should be available in each emergency vehicle, postal.
- Goal 6. More and better enforcement of existing laws. Increase police/sheriff presents in rural areas.
- Goal 5. Espanola Presbyterian Hospital, being the major provider needs to become a better provider, more responsive to emergencies.
Welcome to the Rio Arriba County Comprehensive Plan  
Second Round of Community Meetings

The Comprehensive Plan is a *community vision for a desired and sustainable future*. A Comprehensive Plan is a document that establishes what you, the citizen, resident, or property owner would like to see in the future of the County. It creates a framework through your values and goals to provide direction to the community’s leadership, such as the Board of County Commissioners. The Rio Arriba County Comprehensive Plan is advisory, it does not change or create any new regulations or requirements, but it can recommend changes to them.

The purpose of a Comprehensive Plan is to:
- Provide direction for the community’s future.
- Prioritize community needs and values.
- Create the basis for seeking funding through County, State, and Federal sources.

This draft plan includes a Community Vision statement and six Plan Elements:
- Land and Water
- Housing
- Economic Development
- Infrastructure
- Transportation
- Hazards Mitigation

The purpose of this meeting is for you to prioritize the Implementation Strategies that have been developed for each of the Plan Goals. These strategies have been prepared by the consultant team, and a Citizen Steering Committee. We are asking you to review these strategies and “vote” (by placing a dot) for each of the strategies that are most important to you and that you would like to see Rio Arriba County implement over the next ten years.

You only have 35 dots so you have to choose from the 123 strategies which to prioritize as the most important.
Community Meeting Dates and Locations:

1. Date: Thursday, September 4, 2014  
   Location: Tierra Amarilla, County Complex
2. Date: Tuesday, September 9, 2014  
   Location: Abiquiu Rural Events Center
3. Date: Thursday, September 11, 2014  
   Location: Espanola County Annex Building
4. Date: Tuesday, September 16, 2014  
   Location: La Arbolera, Chimayo Community Center
5. Date: Tuesday, September 25, 2014  
   Location: Alcalde Community Center
6. Date: Thursday, September 23, 2014  
   Location: Dixon Community Center
7. Date: Tuesday, September 30, 2014  
   Location: Tierra Amarilla, County Complex

Comprehensive Plan identifies a County–wide community vision with six plan elements. Each element consists of a set of goals and implementation strategies, the six plans are as follows: Land & Water, Economic Development, Transportation, Hazard Mitigation, Housing, and Community Facility Infrastructure.

The goal, strategy and comments were gathered from the community meetings from the surrounding areas listed above.

**LAND AND WATER:**

**Goal:** Maintain the rural nature of our private forest lands, but enable private landowners to keep large continuous land undeveloped, but managed for healthy, resilient forest.

**Strategy:** work with state to create a 3 tier land tax that allows a reduced tax rate for land that is…a) under a conservation easement b) managed for health and resilience.

**Goal:** Protect and preserve all watersheds.

**Strategy:** help create networks between farmers and folks who aren’t using their agricultural land, so farmland and acequias are maintained.

**Goal:** Support forest industry that will target woody material that needs to come out of the forest i.e. Small diameter timber to create fire resistant landscapes.

**Strategy:** work with collaborative stakeholder groups to identify and find solutions to hurdles that retard the development of reasonable industrial operations.

**Goal:** Pristine ground waters, Protect Rio Chama/Rio Grande watersheds.

**Strategy:** No Fracking anywhere in those watersheds and preserve Rio Arriba’s historic prohibition of oil and gas development anywhere east of the Continental Divide….Work closely with BLM, Forest Service to pre-empt or be aware of thinning plans, give work to local citizens…..
Need responsible drilling, all development near the Rio Chama watershed falls under the jurisdiction of the EPA, all development that effects water quality needs to be held to EPA scrutiny.

**Goal:** Continue to preserve & Protect Irrigable Lands.
**Strategy:** Provide incentives to landowners to keep land under irrigation. This is the Highest & Best use of irrigable land.

Also, In agreement with this goal and strategy and feel that protecting water quality is one of the most important issues here. Also, in favor of a County Ordinance against Oil & Gas drilling east of the Continental Divide.

Explore methods to facilitate development on small lots without water and sewer problems….Accessory Structures with less setbacks.

Wastewater treatment facility and collection system

Forest health improvements on the landscape…Hazardous fuel reduction…watershed/riparian improvements.

**ECONOMIC DEVELOPMENT**

**Goal:** Added Value- Organic & Grass-fed free range produce & livestock-with the collapse of Agriculture (drought) in California there will be a huge and real opportunity for added value (small) farm/ranch products.
Climate challenges-growing season/wind/altitude/winter
Wind breaks for growing areas, year around subterranean green houses

**Strategy:** Free advertising page on County website for local (home) business.

Recognize that the County depends on Oil & Gas revenues, is counter to preserving the watershed of the Chama. Search for other economic generators to take the place of oil & gas.

Experimental program for building greenhouses w/ Industrial hemp formed structural material. NO: rot, mold, stronger than steel.

Complete regional food system development, Supply and Demand = Farm to store, restaurant and home.

Focus on Micro-businesses growing in an incubator.

Chimayo area needs a Tech Center of some kind to build an opportunity for training to support sustainable building and farming, young families will continue to leave where they can get training.

Offer incentives to parties interested in businesses of value to residents.
TRANSPORTATION

Farm products can’t get to market without adequate roads. When roads get washed out they need to get fixed as soon as possible for people who rely on them. Improve bridges so they don’t wash out every time it rains. We need bridges not culverts that keep washing away. Get help from real engineers, Army Corps of Engineers, or FEMA. Low water concrete crossings in rural communities would help. More dozers for Rio Arriba County and City Emergency response. Mass Transit System in the County.

HAZARD MITIGATION

Malde Mass Spectrometer- Independent testing lab, for monitoring water for chemical contamination.

Radiation monitoring, Water treatment

Update Community Wildfire Protection Plan (CWPP)

Arroyos to be inspected before a disaster happens

Preserve Night Sky, night sky pollution has significantly grown with Jemez Mountain Coop. selling sodium lights without any shielding, a small item but one that is very irritating.

More dozer…..

Protect channels below flood control dams from encroachment.

When disaster occurs have a corp. of Social Workers go out & help residents to identify needs & file paperwork for claims.

Review maintenance techniques in arroyos.

Prepare a joint plan with BLM, State Forestry, ect to regulate flood flows from Federal lands

Acquire right of way for flood channels.

Update Community Wildlife Protection Plan (CWPP)

Seek funding opportunities & collaboration for hazard fuel reduction and defensible space improvement.
**HOUSING**

More Amish style barn raising, bring in alternative building experts- have lottery for communities to work together to build energy efficient sustainable structures with involvement and learning.

Explore the potential of hemp Industrial as a building material, teach techniques at El Rito Campus.

Elderly housing with community gardens where youth can learn our traditions. Taos Retirement Village a great example.

“Agrihoods”

**COMMUNITY FACILITIES & INFRASTRUCTURE**

Health & Medical Facilities, Access to swimming for working people (evening hours)

Housing, weight room and Health & Wellness Center (evening hours)

Schools, Mentoring programs keep tradition alive. Hands on farm to class room, help younger generation fall in love with county life. Learn traditional culture components, learn to speak Spanish.

Solid waste for rural communities, free recycle of usable things

Natural Gas Expansion

Trails especially in communities

After School Programs- 3:00-4:30 either in school buildings or library or other public buildings. teachers & volunteers…..sports, arts, literature.

River walk and bike trails along the Rio Grande

Incentives to protect & preserve irrigable lands, monitoring traditional Acequias, irrigating and farming

College Level Tech Center, similar to SFCC in Chimayo area, so locals can learn skills and get support

Recreational Facilities are sorely needed things for people to socialize and stay in shape.

Community Parks

Assist Municipal Water Associations with improvements and development.
APPENDIX F

THE PUBLIC WELFARE POLICY STATEMENT

The New Mexico State Water Plan Protects the Acequias of Rio Arriba County

The New Mexico State Water Plan, ("NMSWP"), adopted by the New Mexico Interstate Stream Commission on December 17, 2003, expressly recognizes the importance of Acequias and supports several goals which are inherently compatible with the acequia culture and systems of Rio Arriba County watersheds. Certain of these goals in the State Water Plan which promote and support acequias are as follows:

(1) the promotion of conservation and the efficient use of water, page 8 of 80;
(2) the protection of the acequias’ senior water rights, pages 9-10 of 80;
(3) the completion of water rights adjudications, page 11 of 80; and
(4) the management of water by acequias where water sharing customs and water banks for preservation of cultural and local uses are recognized, pages 15-16 of 80.

Importantly, the New Mexico State Water Plan strongly supports the goal of diversity in its policy statements, which is of particular historical importance to Rio Arriba County in light of its resident pre-Columbian Native American populations, and its native Hispano settlements which descend from the oldest continuous European presence in the continental United States. The numerous Hispano settlements of Rio Arriba date back to the first Spanish settlement in 1598 of Don Juan de Onate at San Gabriel de Yunge between the banks of the Rio Chama and Rio Grande:

“Consider water rights transfer policies that balance the need to protect the customs, culture, environment and economic health and stability of the state’s diverse communities while providing for timely and efficient transfers of water between uses to meet both short-term shortages and long-term economic development needs.”

Section C-9, page 44 of 80, New Mexico State Water Plan.

The acequias of Rio Arriba County which have their origins in Roman, Moorish and Spanish law, tradition, custom and practice, constitute the oldest form of local government in the United States, and their economic health and stability are assured by the diversity goal of the New Mexico State Water Plan.

The New Mexico State Water Plan also makes express note of the strong sentiment of New Mexico citizens that “traditional uses of water have value”, and that “water is the only thing keeping rural communities viable.” This sentiment is important to Rio Arriba County because of the highly rural setting of its acequias.
The New Mexico State Water Plan Act itself requires that the plan “identify and reflect the common priorities, goals and objectives that will have a positive impact on the public welfare of the state’s waters.” In addition, regional water plans are required to “provide for …adequate review of…the effect of public welfare. The New Mexico State Water Plan Act mandates that “all regions must incorporate public welfare statements into their regional plans.”

Appendix C, paragraph 3 of page 8, New Mexico State Water Plan.
This mandate for a public welfare statement in regional plans must of necessity be specific to the diverse communities found throughout New Mexico. For Rio Arriba County this diversity is found in its numerous acequia communities, comprised of over 230 member acequias.

The Treaty of Guadalupe Hidalgo Protects the Acequias of Rio Arriba

The New Mexico State Water Plan, itself, exists in the context of the law of New Mexico, which has its origins in the Kearny Code of 1846 and the Treaty of Guadalupe Hidalgo of 1848. The Kearny Code itself recognized and codified much of the law from the Spanish and Mexican periods, which included the customs and practices of the acequias of the ceded territory. The Kearny Code effectively assured continuity and stability at the conquest of the ceded territory by continuing the same pre-war settlement pattern of the Spanish and Mexican periods, based on the system of acequias and other usufructuary rights of the people to the common lands, including pasture. These rights were protected by the Treaty of Guadalupe Hidalgo, which applied to all ceded territory from Mexico to the United States.

At statehood New Mexico guaranteed the legal application of the Treaty of Guadalupe Hidalgo by the adoption into the Constitution of the State of New Mexico of Article II, Bill of Rights, Section 5, “Rights under Treaty of Guadalupe Hidalgo preserved”, which reads as follows:

The rights, privileges and immunities, civil, political and religious guaranteed to the people of New Mexico by the Treaty of Guadalupe Hidalgo shall be preserved inviolate.

Significantly, New Mexico is the only state from the Mexican territory ceded to the United States, (comprised of Arizona, California, Nevada, Utah, and parts of Colorado and Wyoming), which has ratified its state constitution with a provision requiring that the “Treaty of Guadalupe Hidalgo shall be preserved inviolate.” There is no mention whatsoever of the Treaty of Guadalupe Hidalgo in any of the constitutions of the aforementioned states. While these neighboring states are free to give such weight to the Treaty of Guadalupe Hidalgo in matters of law as deemed proper, New Mexico is required to preserve “inviolate…the rights…guaranteed to the people of New Mexico” by the Treaty. It is incumbent upon the County and its native land-based residents to identify and document the local practices customs, and traditions that are protected under the Treaty.

It is a matter of black letter law that a state constitution is the supreme law of the people of a state, subject only to certain limitations of the Constitution of the United States. Since the state constitution is supreme or paramount law, the branches of state government cannot lawfully act
beyond its limitations and its provisions control in any case of conflict with all lesser laws, such as statutes, local ordinances, or administrative regulations. In the instance of the regional water plan, involving property rights, customs and practices of the acequias of the Rio Arriba watersheds, this constitution mandate supports the protection of the acequias through the public welfare requirement of state law.

*The Public Welfare Policy Statement of Rio Arriba County*

In view of the long history leading to public water policy of the State of New Mexico, which policy is mandated by the Treaty of Guadalupe Hidalgo, Rio Arriba County defines the public welfare requirement as follows:

The “public welfare” of the State of New Mexico is advanced by maintaining the diversity and the economic sustainability of its communities throughout its respective planning regions. Rio Arriba County contributes the historically unique and economically important acequia system and culture to the diversity goal of the State of New Mexico. Therefore, protecting the stability of the acequia system and culture is the primary goal by which all applications for the transfer of water rights, changes in use, purpose or place of use, or points of diversion, as well as other applications under the states water code, must be evaluated and weighed by the decision-makers in the context of local practices, custom and tradition as well as the contemporary local domestic needs of its residents and other future innovative sustainable uses.

The state water code, including administrative regulations, must not violate the Treaty of Guadalupe Hidalgo which is the supreme law of New Mexico by virtue of its adoption into the Constitution of the State of New Mexico of Article II, Bill of Rights, Section 5, “Rights under Treaty of Guadalupe Hidalgo preserved”, which reads as follows:

The rights, privileges and immunities, civil, political and religious guaranteed to the people of New Mexico by the Treaty of Guadalupe Hidalgo shall be preserved inviolate.

If an application is found to de-stabilize the acequia system whether directly through the loss of water to the system, even if such loss is de minimis, or indirectly by contributing to the loss or de-stabilization of custom, practice or tradition of the acequia systems of Rio Arriba County, that application should be denied. The term decision-makers includes all acequias, all acequia associations, all local governmental units, as well as the State Engineer.

The extensive experience and expertise of parciantes, mayordomos and comisionados in the management of the invaluable surface water supplies of Rio Arriba County shall be given deference by the State Engineer in deciding whether applications for transfers or changes in use shall be approved or denied, especially when the applicant is preserving the water resource within the existing watershed. Rio Arriba County recognizes that the acequia community by virtue of its unique expertise is in the best position to be able to make those decisions which allow it to incorporate domestic and other new sustainable uses into its acequia system in order to improve its economy and rural way of life, but which do not de-stabilize its long-standing customs, practices and traditions.

Deference to the acequia decision-makers by the State Engineer, and the court system, is the proper legal relationship by which diversity of the acequia communities can be
protected pursuant to the Constitution of the State of New Mexico, specifically Article II, Bill of Rights, Section 5, “Rights under Treaty of Guadalupe Hidalgo preserved.
# Appendix G

## New Mexico Wildlife of Concern

<table>
<thead>
<tr>
<th>Species ID</th>
<th>SpeciesLink</th>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Habitat Map</th>
<th>Status</th>
</tr>
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<tbody>
<tr>
<td>10140</td>
<td>Rio Grande Chub</td>
<td>Rio Grande Chub</td>
<td>Gila pandora</td>
<td>Yes</td>
<td>State NM: Sensitive taxa (informal)</td>
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<tr>
<td>10145</td>
<td>Roundtail Chub (upper basin populations)</td>
<td>Roundtail Chub (upper basin populations)</td>
<td>Gila robusta</td>
<td>Yes</td>
<td>State NM: Endangered</td>
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<tr>
<td>10585</td>
<td>Rio Grande Cutthroat Trout</td>
<td>Rio Grande Cutthroat Trout</td>
<td>Oncorhynchus clarkii virginalis</td>
<td>Yes</td>
<td>State NM: Sensitive taxa (informal)</td>
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<tr>
<td>20090</td>
<td>Boreal Toad</td>
<td>Boreal Toad</td>
<td>Anaxyrus boreas</td>
<td>Yes</td>
<td>Federal: FWS Species of Concern (no longer maintained) State NM: Endangered</td>
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<tr>
<td>30056</td>
<td>Southwestern Fence Lizard</td>
<td>Southwestern Fence Lizard</td>
<td>Sceloporus cowlesi</td>
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<td>State NM: Sensitive taxa (informal)</td>
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<tr>
<td>40040</td>
<td>Common Black Hawk</td>
<td>Common Black Hawk</td>
<td>Buteogallus anthracinus</td>
<td>Yes</td>
<td>Federal: FWS Species of Concern (no longer maintained) State NM: Threatened</td>
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<tr>
<td>40250</td>
<td>Yellow-billed Cuckoo (western pop)</td>
<td>Yellow-billed Cuckoo (western pop)</td>
<td>Coccyzus americanus occidentalis</td>
<td>Federal: Threatened State NM: Sensitive taxa (informal)</td>
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<td>40370</td>
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<td>Haliaeetus leucocephalus</td>
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<td>40384</td>
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<td>Peregrine Falcon</td>
<td>Falco peregrinus anatum</td>
<td>Yes</td>
<td>Federal: FWS Species of Concern (no longer maintained) State NM: Threatened</td>
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<td>Code</td>
<td>Common Name</td>
<td>Scientific Name</td>
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<td>Federal</td>
<td>State NM</td>
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<tr>
<td>40385</td>
<td>Arctic Peregrine Falcon</td>
<td>Falco peregrinus tundrius</td>
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<tr>
<td>40521</td>
<td>Southwestern Willow Flycatcher</td>
<td>Empidonax traillii extimus</td>
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<td>Critical Hab. Designated (NM)</td>
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<tr>
<td>40610</td>
<td>Northern Goshawk</td>
<td>Accipiter gentilis</td>
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<td>41315</td>
<td>Boreal Owl</td>
<td>Aegolius funereus</td>
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<td>41320</td>
<td>Burrowing Owl</td>
<td>Athene cunicularia</td>
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<td>41375</td>
<td>Mexican Spotted Owl</td>
<td>Strix occidentalis lucida</td>
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<td>Critical Hab. Designated (NM)</td>
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<td>41400</td>
<td>Brown Pelican</td>
<td>Pelecanus occidentalis</td>
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<td>41500</td>
<td>Mountain Plover</td>
<td>Charadrius montanus</td>
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<td></td>
<td>Sensitive taxa (informal)</td>
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<td>41530</td>
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APPENDIX I – NODE DEVELOPMENT AREAS